

MOTOR AGE

BUFFALO CLUB WINS GLIDDEN TROPHY



NEW YORK, July 24—Special telegram—The Glidden trophy in the third annual contest has been won by the Automobile Club of Buffalo, which, with a penalization of $18\frac{1}{2}$ points, had a score of $981\frac{1}{2}$ when the 1,500-mile tour was finished in New York today. The second honors went to the Pittsburg Automobile Club, whose score was $977\frac{1}{2}$. The result was a toss-up between these two clubs until the last day, when the easy running settled the final disposition of the trophy. In each case the loss of points was occasioned by one car, the Buffalo club's losing 91 points and that of Pittsburg 90. Buffalo obtained its pre-eminence by the fact that its team was one of five, while there were but four on the Pittsburg team. Each club's penalizations were the loss of each team member divided by the number of members.

The contest for the Hower trophy was a tie between the White runabout, No. 108, driven by H. K. Sheridan, and the Stoddard-Dayton runabout, No. 104, driven by G. S. Smith, both finishing with perfect scores.

It was announced by Chairman Hower at the meeting of Gliddenites at the Astor hotel tonight that these two after a conference had expressed a desire to fight it out. Hence they will continue until one or the other is penalized. A confetti

car will be provided at their expense and they will be given stiff schedules over suitable courses.

The final score of each club contesting for the Glidden tour is: Automobile Club of Buffalo, five members, $981\frac{1}{2}$; Pittsburg Automobile Club, four members, $977\frac{1}{2}$; New York Motor club, ten members; $683\frac{1}{2}$; Westchester Motor Club, three members, $620\frac{1}{2}$; Automobile Club of America, four members, $498\frac{1}{2}$; Cleveland Automobile Club, nine members, $483\frac{1}{2}$; Chicago Automobile Club, seven members, $240\frac{1}{2}$; Detroit Automobile Club, four members, nothing.

The winning team consisted of the following cars: No. 9, 60-horsepower Thomas, G. S. Salzman, perfect; No. 11, 60-horsepower Thomas, M. Hallowell, perfect; No. 17, 60-horsepower Pierce, F. S. Dey, perfect; No. 27, 45-horsepower Pierce, A. Kumpf, perfect; No. 4, Packard, Gus Buse, 909 points.

The Pittsburg club consisted of: No. 14,

45-horsepower Pierce, P. S. Flinn, perfect; No. 21, 45-horsepower Pierce, T. P. Jones, 910; No. 22, Packard Thirty, H. H. Perkins, perfect; No. 29, 50-horsepower

Welch, G. P. Moore, perfect.

The cars which finished the tour with perfect scores were:

- 3—R. D. Garden, Pierce, New York
- 9—G. S. Salzman, Thomas, Buffalo
- 11—Montgomery Hallowell, Thomas, Buffalo
- 14—P. S. Flinn, Pierce, Pittsburg
- 17—F. S. Dey, Pierce, Buffalo
- 19—G. A. Weldely, Premier, A. C. A.
- 22—H. H. Perkins, Packard, Pittsburg
- 27—A. Kumpf, Pierce, Buffalo
- 29—G. P. Moore, Welch, Pittsburg
- 31—E. S. Lea, Walter, New York
- 33—R. M. Owen, Reo, A. C. A.
- 39—A. N. Jervis, Berliet, New York
- 42—R. H. Tucker, Royal Tourist, Cleveland
- 47—Walter C. White, White, Chicago
- 48—A. J. Scafe, White, New York
- 49—C. H. Burman, Peerless, Cleveland
- 50—W. C. Straub, Peerless, Cleveland
- 54—Edward Noble, Haynes, Chicago

No. 15, Gratiot Cabanne, American Mors, driving for a certificate, but unattached to any club, also made a perfect score. Of the individual high-power runabouts contesting for the Hower trophy,



NOT AN EVERYDAY, BUT NOT AN UNUSUAL OCCURRENCE

No. 104, G. S. Smith, Stoddard-Dayton, Quaker City, and 108, H. K. Sheridan, White, made perfect scores.

The Glidden cars which lost points but finished the contest were:

44—Gus Buse, Packard.....	909
21—T. P. Jones, Pierce.....	910
26—A. E. Cuneo, Rainier.....	392
32—W. J. Howard, Oldsmobile.....	997
43—J. W. Mears, Acme.....	679
28—P. Gaeth, Gaeth.....	997
41—I. C. Kirkham, Maxwell.....	873
58—L. S. Tyler, Maxwell.....	997
38—H. C. Tillotson, Stoddard-Dayton.....	858
24—W. M. Lewis, Mitchell.....	295
34—R. L. Lockwood, Reo.....	766

In addition to these there finished the trip seven cars which had withdrawn from the contest, but which went on to make good on the whole tour. They were: No. 25, Lozier; No. 23, Shoemaker; No. 37, Meteor; No. 59, Maxwell; No. 55, Haynes; No. 12, Thomas Forty; No. 16, Royal Tourist.

Of the original forty-six starters the following ten actually left the tour at different points on the route from various reasons: No. 30, Autocar; No. 1, Apperson; No. 6, Packard; No. 56, Columbia; No. 7, Welch; No. 36, Pungs-Finch; No. 46, Aerocar; No. 35, Reo; No. 45, Aerocar; No. 2, Pierce.

There were four unattached certificate starters, the record of which follows: No. 10, F. J. Pardee, American Mors, 852; No. 15, G. Cabanne, American Mors, perfect; No. 51, J. H. Becker, Elmore, 868; No. 52, W. G. Houck, Deere, nothing.

Aside from the two perfect score Hower contestants as previously given only one other of the thirteen starters was a contestant at the finish, this being No. 100, A. E. Hughes, Pierce, 994 points. The eliminated ones were: 102, Thomas, finished; 103, Premier, quit; 106, Matheson, finished; 107, Marion, quit; 111, Pennsylvania, finished; 115, Cleveland, quit; 109, Continental, quit; 112, Dragon, finished; 113, Dragon, quit; 114, Thomas, quit.

The other unaccounted cars of the total seventy-four starters are: Chairman Hower, Pierce; confetti, Maxwell and Premier; press, Packard, White, Thomas, Haynes, Aerocar; Goodrich tires, Thomas; Diamond tires, White; Fisk tires, Locomobile.

At the meeting tonight Mrs. Cuneo, the only woman driver in the tour, was presented with a silver cup by the other participants in the tour. A telegram of congratulations was read from President Hotchkiss of the A. A. A., who evidently was too busy to come to town to welcome the tourists. The No. 33 Reo continued from New York tonight on a non-motor-stop run to Jamestown.

A MECHANIC'S VIEWS

New York, July 20—Special telegram—There has been much to learn on the tour. Runnings gears are weak; motors, clutches and gearsets are satisfactory. This is the unquestionable conclusion arrived at now that the tour is at an end. Broken springs put five contestants out of the running for the Glidden trophy, the unfortunates on this score being: No. 23, Shoemaker, two front springs broken; No. 26, Cuneo, three; No. 25, Lozier, three; No. 24, Mitchell, two; No. 12, Thomas Forty, one; No. 16, Royal Tourist, two; No. 52, Deere-Clark, one; No. 24, Packard, all of which received penalizations for broken springs or leaves. There are other cases of one or two broken leaves which netted slight penalizations.

In every case the springs broken have been of the semi-elliptic or platform type, not a single full-elliptic or three-quarter-elliptic having been out of commission. It must not be forgotten that by far the greatest number of cars are fitted with semi-elliptics, yet the fact that not a single full-elliptic has broken shows the adaptability of these springs for rough road use. The spring problem is uppermost in the minds of many makers who are accompanying the tour and one summed up the situation nicely when he declared that had he known the kind of roads he was going to be up against he would have fitted special springs, as many of the contestants did.

As if to help out the spring problem has come that of shock absorbers and their record in the tour has not been a spotless one. It is a fact not to be overlooked that many of the acknowledged best cars contesting are not using any kind of absorbers, depending entirely on the quality of the springs used. Mitchell No. 24, which broke its two front springs, had them fitted with Hartford absorbers. Kirkham's Maxwell, No. 41, has absorbers fitted all around but broke a leaf in its right front spring. In a cursory checking over of the cars near the completion of the run nine were found to be equipped with Hartford absorbers, two with the Sager spirals placed between the frame and the axle; three with Gabriel shock eliminators, several with Dietzmans and three with Kilgores. On several of these cars the absorbers were out of use, either having broken or been removed purposely by the entrant. Cars using full-elliptics in front or rear, or both, are: Two Premiers, two Welches, the Dragons, the Reos and a couple of others.

Broken wheels have wrecked the hopes of not a few, among these being the Marion roadster, one Maxwell, the Autocar, Aerocar and the Thomas roadster. Added to this is a long list of wheels with loose spokes which sooner or later would have given way if the tour had continued. Sev-



A MOB TURNED OUT AT COLUMBUS TO GREET THE TOURISTS



BIRD'S-EYE VIEW OF THE START AT COLUMBUS

eral sprung axles made their appearance, some because of the general rough nature of the roads and others traceable directly to accidents. The Acme bent its stationary rear axle by striking a wedge formation on the road but was able to straighten it by taking it out, carrying it to a blacksmith shop, heating it and straightening it. The Deere front axle was bent when it ran into the canal and although straightened the heating apparently softened it and it resumed its malformation the next day. In spite of the popularity of I-beam axles the tubular front axles gave no trouble and stood the strain perfectly. Rear axle construction, of the live type, has shown little weaknesses, the only definite flaw being an Aerocar press machine that broke its axle. There were several of the lighter cars with their rear wheels spreading badly.

Many cars had deficient brakes. In crossing the mountains two contestants, Price's Maxwell and the Meteor, had to run into the bank to avoid a runaway down the hills. At the foot of a long decline many cars had to have water thrown over the brakes. Often in such places the air was like that surrounding a burning leather factory, so destructive was the driving on the braking surfaces. Many of the drivers failed to take advantage of the motor on long descents and kept the brakes constantly applied, whereas the old-timers cut out their ignition and used the compression of the motor to assist the brakes. In this way many cars made the drop from the mountains without once having to use the emergencies. Brake surfaces are too small on many cars. It is not so much the width of the brake drum as the diameter of it that counts. The good brake is one of larger diameter and not necessarily great width. Nothing is more commendable than the advances in brake construction as evidenced on such cars as the Berliet, Pierce and White steamers. Of particular advantage was the tour through the mountains as an eye-opener for many engineers and makers. One of them in

speaking of his own car, declared it was nothing short of criminal to turn out cars so poorly equipped with brakes as are the ones he designed as well as two score of the other contestants.

Only three steering gear accidents occurred. Two of these befell the Deere-Clark entry, one on the first day of the run when it broke the left knuckle and the other on the run to Canton when the drag link from the sector arm to the tie rod broke. The other accident was the breaking of the right knuckle on the Pennsylvania machine.

Many makers doubtless will learn from the tour that a car is not just a motor and gearset but that the old lesson of building the house upon the rock must not be overlooked. Without a good framework, axles, springs and wheels excellent motors are of little account. The only examples of weak or broken frames in the run were those of the Continental and Autocar, the former broken by an accident the first day and the second cracked near the center on the right side. Both of these cars abandoned the run.

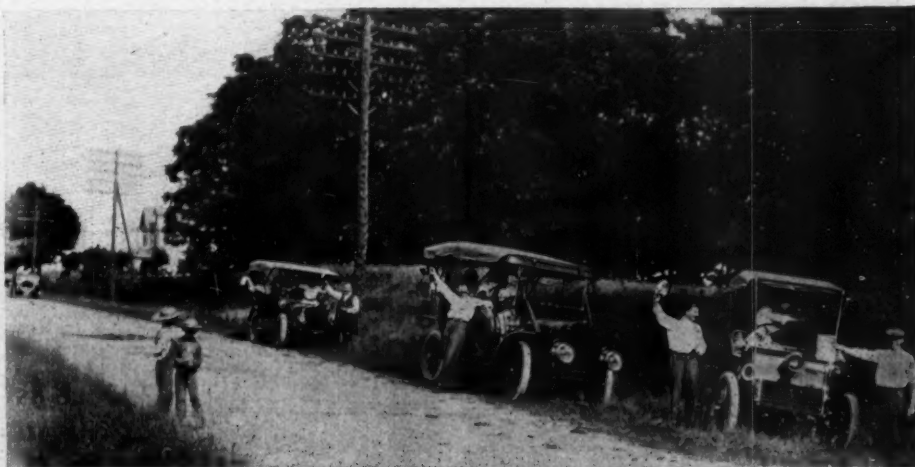
It is hard to tell what the few motor troubles were. Perhaps the most serious was that to the Matheson, which sheared off a couple of bolts holding a connecting rod cap in place and later, because of this first

accident, broke the crankcase. This is an old car and was not overhauled before the start of the tour. There were a few troubles caused by fan belts coming off and breaking. One lubricator broke. Magnetos did not give any trouble other than the breaking of the supporting bed of the magneto on No. 1. There were the usual ignition troubles, such as short circuiting because of the wet, broken wires, vibrators in need of adjustment and dirty plugs, but they have all been capable of speedy rectification.

The mountain climbing called for frequent filling of the radiators as well as a copious use of oil, many of the cars hiding themselves in smoke before they left the starting point. Notwithstanding that the cars were using different grades of gasoline daily few carburetor troubles arose, the majority of them being due to dirt and water in the fuel. Not a single instance was reported of a carburetor having to be disassembled along the road for the purpose of making adjustments or overcoming unknown troubles.

Now and then a report leaked out that this or that car had been running with a slipping clutch, but the tourists say that clutches are par excellence compared with the many parts of the running gear. A few transmissions gave trouble, these troubles due to dirt and metal getting between the gears rather than to poor metal used in them or poor manufacture. The Dragon was the only case on record where transmission bearings wore sufficiently to allow the gears to mesh improperly, the result being stripped gears.

All told the tour will take its place in history as a valuable lesson in motor car construction. Many of next year's cars will be better because the makers participated in the tour. Doubtless many whose hearts failed them and who did not enter will frame their next year's models according to the lines blazed out by the Glidden of this season. While the cars have had troubles, they have been the faults of the drivers in many cases. Impetuous, reckless drivers will put the best car out of running in a few days, yet the careful, watchful driver will run a cheaper car for an entire season without trouble.



ALL ALONG THE TOUR ROUTE MOTORISTS GAVE A WELCOME

COMPLETE TABLE OF PENALIZATIONS FOR EACH DAY OF THE 1907 A. A. A. TOUR

[illegible]

Nos. 1 to 60 inclusive were contestants for Glidden trophy.

Nos. 61 to 99 inclusive were official and press cars.

Nos. 100 to 114 inclusive were contestants for Hower trophy.

Those with no scores were non-contestants.

EACH CAR'S STORY OF TROUBLES AND PENALIZATIONS

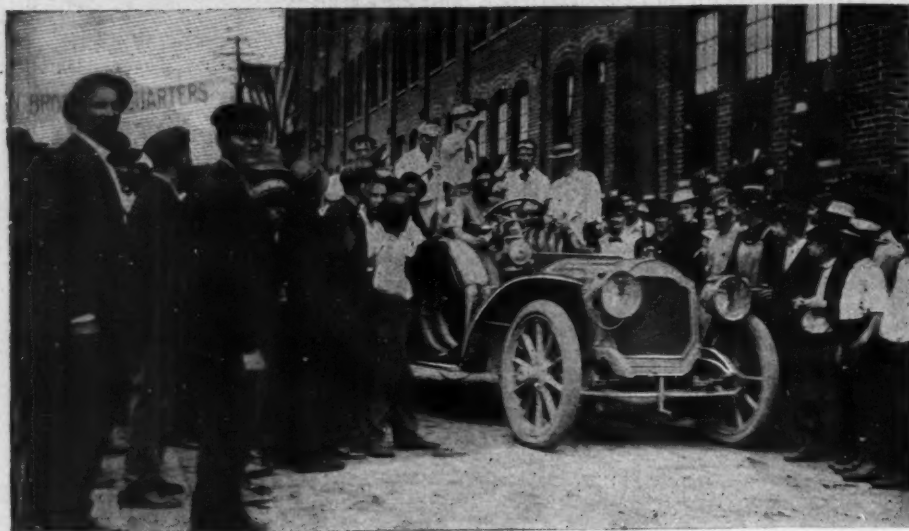
- No. 1, N. H. Van Sicklen, Apperson—Second day, 23 points; broken magneto support and jackshaft bearing; 143 points club penalty for withdrawing
- No. 2, K. R. Otis, Pierce—Second day, car ditched, 111 9-10; withdrawn
- No. 3, R. D. Garden, Pierce—Perfect
- No. 4, H. A. Grant, Maxwell, confetti car
- No. 5, A. L. Kull, Dragon—Did not start
- No. 6, T. J. Clark, Packard—Second day, 154 points; car ditched; withdrawn, entrant fatally injured; 143 points club penalty for withdrawing
- No. 7, A. R. Welch, Welch—First day, 12 points; struck bridge, bent axle; broke crankshaft near Philadelphia; abandoned tour.
- No. 8, C. E. Finlay, Pierce Arrow—Did not start
- No. 9, George S. Salzman, Thomas Flyer—Perfect, no extra parts carried
- No. 10, F. J. Pardee, American Mors, noncontestant—Eighth day, 3 points, late at checking station; broke spring near Philadelphia
- No. 11, Montgomery Hallowell, Thomas Flyer—Perfect
- No. 12, R. D. Chapin, Thomas Forty—Second day, 1 point; late. Third day, 636 points; broke spring. Fourth day, 250 points club penalty for withdrawing; continued as noncontestant
- No. 13, George M. Davis, Thomas Flyer—Noncontestant. Thomas publicity car
- No. 14, Phillip S. Filnan, Pierce Arrow—Perfect
- No. 15, Gratiot Cabanne, American Mors, noncontestant—Perfect
- No. 16, Orrel A. Parker, Royal Tourist—Second day, 6 points; late, tire trouble. Third day, 250 points club penalty for withdrawal; continued as noncontestant
- No. 17, F. S. Dey, Pierce Arrow—Perfect
- No. 18, H. Paulman, Pierce Arrow. Did not start.
- No. 19, T. W. Moore, Premier—Perfect
- No. 20, J. K. Mills, Dragon—Did not start
- No. 21, Thomas P. Jones, Pierce—Ninth day, 90 points; late, tire troubles
- No. 22, H. H. Perkins, Packard—Perfect
- No. 23, H. C. Shoemaker, Shoemaker—Third day, 26 points; broken springs; 111 points club penalty for withdrawal; continued as noncontestant
- No. 24, W. M. Lewis, Mitchell—Sixth day, 8 points; tire troubles. Seventh day, 98 points; broken spring. Eighth day, 181 points, broken spring. Ninth day, 315 points, repairing spring. Tenth day, 60 points, late
- No. 25, Sid Black, Lozier—Eighth day, 57 points, broken springs; 111 points club penalty for withdrawal; continued as noncontestant
- No. 26, Mrs. A. Cuneo, Rainier—Second day, 4 points, tire trouble. Eighth day, 8 points late. Ninth day, 3 points, broken spring. Tenth day, broke two springs and bent axle
- No. 27, A. Kumpf, Pierce Arrow—Perfect
- No. 28, P. Gaeth, Gaeth—Eighth day, 3 points, late, tire troubles
- No. 30, H. M. Coale, Autocar—Fifth day, 100 points, broke frame and wheel; abandoned tour
- No. 31, E. S. Lea, Walter—Perfect
- No. 32, W. J. Howard, Oldsmobile—Eighth day, 3 points, late; late entering Pittsburg, leaking radiator and broken spring
- No. 33, R. M. Owen, Reo—Perfect
- No. 34, R. L. Lockwood, Reo—Second day, 22 points, chain repairs. Fourth day, 212 points, engine and tire troubles
- No. 35, R. A. Rainey, Reo—Fifth day, 250 points, broken axle; abandoned tour
- No. 36, E. B. Finch, Pungs-Finch—Second day, 250 points, late; abandoned tour
- No. 37, A. L. Peterson, Meteor—Second day, 117 points, car ditched. Third day, 160 points, car ditched and damaged radiator. Seventh day, 285 points, repairing radiator. Eighth day, broke axle and steering gear, 111 points club penalty for withdrawal; continued as noncontestant
- No. 38, H. C. Tillotson, Stoddard-Dayton—Tenth day, 60 points, brake and driveshaft troubles
- No. 39, Arthur N. Jervis, Berliet—Perfect
- No. 40, R. H. Johnson, White—Noncontestant. White publicity car
- No. 41, I. C. Kirkham, Maxwell—Eighth day, 37 points, late. Ninth day, 53 points, late, broke drive shaft
- No. 42, R. H. Tucker, Royal Tourist—Perfect
- No. 43, J. W. Mears, Acme—Second day, 106 points, late. Seventh day, 42 points, late; lost road. Eighth day, 27 points, bent axle. Ninth day, 142 points, repairing axle
- No. 44, G. G. Buse, Packard—Seventh day, 91 points, late, lost road; also tire troubles
- No. 45, A. M. Robbins, Aerocar—Seventh day, 100 points, struck wagon; abandoned tour
- No. 46, George F. Barr, Aerocar—Fifth day, broke wheel, 259 points club penalty for withdrawing; abandoned car
- No. 47, Walter C. White, White—Perfect
- No. 48, A. J. Scalfe, White—Perfect
- No. 49, Charles H. Burman, Peerless—Perfect
- No. 50, W. C. Staub, Peerless—Perfect
- No. 51, J. H. Becker, Elmore—Noncontestant, broke hub, lost fan belt
- No. 52, W. B. Houck, Deere—Eighth day, broke steering gear; abandoned tour
- No. 53, Deere-Clark Motor Co., Deere—Did not start
- No. 54, Edward Noble, Haynes—Perfect
- No. 55, F. N. Nutt, Haynes—Eighth day, 2 points, late. Eleventh day, broke rear axle
- No. 56, F. E. Dayton, Columbia—Third day, 224 points, ignition and tire troubles. Eighth day, 69 points, late, tire troubles. Ninth day, 143 points, electric transmission disabled; abandoned tour
- No. 57, A. D. Cressler, Thomas Flyer—Did not start
- No. 58, Lucius S. Tyler, Maxwell—Eighth day, 3 points, tire trouble
- No. 59, Charles A. Fleming, Maxwell—Third day, 333 points, broke wheel; withdrawn; continued as noncontestant
- No. 60, William Turner, Thomas Flyer—Goodrich tire car
- No. 61, H. G. Smith, White—Diamond tire car
- No. 62, W. A. Badger, Cleveland
- No. 90, Motor Age press car, Packard—Noncontestant; tire trouble
- No. 91, Automobile press car, Aerocar—Noncontestant; abandoned tour, broke axle
- No. 92, Press car, Haynes—Noncontestant; withdrawn, engine troubles
- No. 98, Confetti car, Premier—Noncontestant
- No. 99, Chairman's car, Pierce Arrow—Noncontestant; engine and tire troubles
- No. 100, A. E. Hughes, Pierce roadster—Ninth day, 6 points, transmission and tire troubles
- No. 101, C. A. Coey, Chicago—Did not start
- No. 102, H. E. Coffin, Thomas Forty—Eighth day, 77 points, broke spring. Ninth day, broke axle and ditched; abandoned tour
- No. 103, H. O. Smith, Premier—Ninth day, abandoned tour owing to driver's illness
- No. 104, E. S. Smith, Stoddard-Dayton—Perfect
- No. 105, J. C. Zimmerman, Locomobile, Fisk tire car—Noncontestant
- No. 106, R. G. Kelsey, Matheson—Second day, 56 points, car ditched. Fourth day, abandoned tour, broke connecting rod and crankcase
- No. 107, Harry C. Stutz, Marion—Fifth day, abandoned tour, broke rear wheel and hub
- No. 108, H. K. Sheridan, White—Perfect; ditched and engine troubles
- No. 109, C. S. Johnston, Continental—First day, 24 points, car ditched, frame broken. Second day, 35 points, car ditched. Sixth day, abandoned tour, arrested for speeding and collided with trolley car
- No. 110, A. B. Tucker, Dragon—Did not start
- No. 111, Wallace Owen, Pennsylvania—Ninth day, abandoned car, broke steering knuckle. Eleventh day, cracked front cylinder
- No. 112, J. W. Haynes, Dragon—Second day, 12 points, fan belt disabled. Eighth day, 186 points, fan belt pulley disabled. Ninth day, abandoned contest, stripped low gear; completed tour
- No. 113, H. P. Branstetter, Dragon—Second day, abandoned tour, stripped propeller shaft pinion
- No. 114, J. G. Barclay, Thomas Forty—Noncontestant; broke front axle

STANDING OF COMPETING CLUBS DURING EACH DAY OF THE TOUR

CLUB	1st Day	2d Day	3d Day	4th Day	5th Day	6th Day	7th Day	8th Day	9th Day	10th Day	11th Day	12th Day
Buffalo Automobile Club.....	1000	1000	1000	1000	1000	1000	981½	981½	981½	981½	981½	981½
Pittsburg Automobile Club.....	1000	1000	1000	1000	1000	1000	977½	977½	977½	977½	977½	977½
New York Motor Club.....	1000	986½	986½	965½	865½	865½	761½	757½	742½	683½	643½	633½
Chicago Automobile Club.....	1000	974½	667	657	657	655½	641½	603½	411½	384	240½	240½
Cleveland Automobile Club.....	1000	875½	855½	744½	744½	744½	612½	494½	375½	375½	375½	375½
Automobile Club of America.....	1000	998½	748½	498½	498½	498½	498½	498½	498½	498½	498½	498½
Westchester Automobile Club.....	1000	1000	664	664	664	664	664	660½	620½	620½	620½	620½
Detroit Automobile Club.....	997	716½	733½	457½	207½	207½	207½	207½	107½	207½

Seventh Day--Columbus to Canton

By E. Ralph Estep



APPERSONS WELCOME TOURISTS AT KOKOMO

CANTON, O., July 18—Crookedly the Glidden tour progressed today through eastern Ohio. Toward all four points of the compass the route angled and wound itself upon itself and ended at the Courtland hotel in Canton after a day of travel which varied from 8 miles an hour over narrow, rutty clay roads to the best speed the cars had in them on level macadam. It was a day of interest.

From Columbus eastward for about 30 miles the ride was over a rough clay road with uninteresting monotony in its scenery. Afterward it widened and was ironed smoother. During the late morning we trundled merrily along through a vast acreage of well-cultivated fields and over a road bordered with hollyhocks and rural friends who told us to beat it. In all of the small towns the receptions were more extensive than on any previous day. At Newark it seemed that more people than comprise the total population were on hand to see the cars go through. All along the road there were picnic parties and straggling bunches of farmers who seemed to appreciate the thing. We made good headway and found that the major portion of the tourists was more closely bunched than it generally is the case. News of the tourists ran rapidly up and down the line. At each place where we of the Motor Age Packard Thirty press car would stop for photographs or to talk with the people we would hear of a car having trouble ahead or of one that had slipped into a soft ditch. We heard that one car had been shot at by a farmer and that Pacemaker Hower had caught up with the confetti car after having lost most of his following.

Much of the way we followed closely by the old abandoned Ohio canal, now grown up with weeds in some places and in others

being a sluggish stream of dirty water several feet deep on top of a mess of mud. We saw a place where the canal parallels a trolley road, a wagon road and a steam road, the four ways of travel being within the range of one camera. Still, even the good nature of the people on the fences and the porches and the throwing of bouquets and lemons became monotonous.

A new rumor came back along the line, however, to awaken interest out of the monotony. A car had gone head first into the canal. This rumor was the beginning, for us, of a side show to the Glidden tour which segregated us from the rest and gave what we had not yet had on the tour—a night ride and a touch of that game of thrills and hard work which made the New York-Pittsburg endurance run a memorable event in motor history.

Three miles west of Lock 17, which means about 20 miles west of Canal Dover, we coasted down a winding hill to a low flat road, stretching alongside the old



LIKE A GLENCOE BUMP

canal, at this point nearly full of water. As we rounded the lower curve we saw a collection of cars by the road, a large crowd of farmers and, just visible above the growth of rushes and weeds, the rear end of the Deere car all but buried in the canal. We stopped to offer aid and stayed to see the thing through. The steering gear of the ditched car had broken and the car had taken a wild plunge diagonally over the bank. It was stuck fast in the slime. Two cars were hooked onto it, but all that could be done was to break the rope. Then a farmer, for a consideration, brought a block and tackle outfit and we went at the job in earnest. The farmer wanted to hitch on his horses, but we thought it would be better to hitch on our car. The Packard steadily pulled the immersed machine onto the road and all hands took a drink from a pail of water brought by a farmer boy. Much time had been spent and we were still 50 miles from Canton, but we had forgotten the Glidden tour in the interest of the peculiar occasion and stayed while a new steering gear was made out of the emergency brake lever, lashed to a lot of odds and ends of car parts which finally connected with the steering knuckles. There was still 2 hours of daylight and the disabled car and ours started up the road. After a few miles of towing A. A. House, sitting on the running board, found that he could manipulate the improvised steering gear with tolerable certainty, and so the tow rope was taken off and the engine started. With one man in the seat running the car and House on the side, steering it, while the Motor Age car went ahead to set the careful pace and pick the road, the strange procession headed for Canton.

It was almost dark when we reached Canal Dover. The remaining 30 miles were of more interest to me than all of the other miles of the tour had been. Here was something to accomplish for its own sake. Sitting there in the partly wrecked and much-battered car, watching the determined House swinging that joke steering handle back and forth, as the car swung and pitched over a rough country road with uncertain ending in a darkness the headlights could not fathom far, the occasion seemed more real than anything else on the tour and had a bit more of that incentive to do things which seem impossible. Ahead down the crooked, uneven highway that swung around steep and somewhat treacherous hillsides, we could see the lights of the Motor Age pathfinder—now plainly in sight; now lost around a corner, or in the short valley ahead. It was slow progress and hard, but a steady one. We got there.

Seventh Day—Columbus to Canton

By David Beecroft



CANTON, O., July 18—The Buffalo Automobile Club lost its perfect score today from Columbus to Canton, 147 miles, when Gus Buse, with No. 44 Packard, received a penalization of 91 points due to time lost with a broken spring, as well as for getting off the road at one point. This penalization cuts 18 1-5 points from the 1,000 credit marks of the Buffalo club and leaves the Pittsburg with the only perfect score tonight. At one time Buse was 3 hours late on his schedule, which was cut down to practically an hour and a half, which he claims would have been practically wiped out had it not been for losing the road. No. 45, A. M. Robbins' Aero-car—one of the water-cooled type—collided with a wagon in one of the towns en route, breaking its front wheel and necessitating its withdrawal. The car was unable to proceed and had the full 100 points totaled against it.

Today brought more trouble to No. 24 Mitchell, which lost its first eight points yesterday because of four tire blowouts and three punctures. In today's tour leaving Columbus both front springs gave way in the center, every leaf in the two breaking. These were repaired by strapping and wiring 2-inch scantling above them, and building up between the top of the scantling and the front with rubber buffers. Because of this the car was 98 minutes late on arriving. The Acme No. 43 had 42 points counted against it, caused by the fast schedule, the driver preferring a medium pace to the rash impetuous traveling of not a few of the contestants.

Thomas Forty, No. 102, broke its right front spring, but was able to make the checking station on time, completing the day's run with its perfect score. Word was received today regarding No. 109, C. S. Johnston's 35-horsepower Continental, which failed to reach Columbus Wednesday evening. Johnston was arrested in Richmond for speeding and detained 4 hours until bonds could be furnished, after which he resumed his journey. When attempting to make up time passing through Dayton, O., he collided with a street car, throwing two tires off and spraining the wrist of one of the passengers. At this point he decided to withdraw.

No. 37, the Peterson Meteor, which has aroused sympathy among many of the tourists because of the continued hard luck it has had, had 285 points counted against it. This car, in the run from South Bend to Chicago, was ditched in passing a team and ran through a wire fence, which worked havoc with the radiator. From that time on radiator leaks have been the rule, and to end the trouble the radiator was taken off on the road this morning and

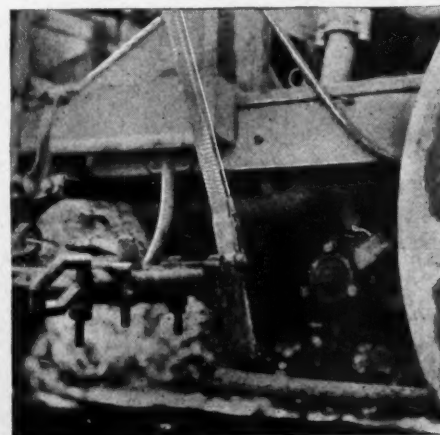


HOW THE CARS WERE PARKED AT INDIANAPOLIS

soldered. After this the car ran off its road at Lock 17, taking a blind roadway over the railroad crossing. In attempting to back out of its situation the left side of the car went over the embankment, and nearly an hour was needed to free it, Tom Fetch being the rescue party.

What might have proved two serious accidents marked today's running. The Walter car, No. 31, in making a dangerous curve, leaped over a 25-foot embankment and landed right side up in a pasture field below.

The other incident of the day was the breaking of steering gear on the Deere-Clark entry, No. 52, when it was descending a hill along the side of the Ohio canal. The driver, A. A. House, claims to have been traveling 20 to 25 miles per hour at the time, and when the steering gear broke the car headed for the canal. Using all brakes he brought it to a standstill after the front wheels were buried in the water with the rear wheels resting on the



THE NEW FETCH STEERING GEAR

tank. All of the passengers held their seats and escaped without injury. It was at this place that Tom Fetch, with his Motor Age car, effected the greatest rescue of the tour. With the aid of a block and tackle, which he anchored to a telegraph pole across the road, the Packard pulled the Deere-Clark out of the canal and onto the road, when it was discovered that the drag rod connecting the tie rod of the steering knuckles with the bell crank arm on the segment of the steering gear had broken. The forward end of the drag rod sheared off the pin holding it in the thimble of the ball joint, allowing the front end of the rod to drop upon the ground, which it tore up for some distance before breaking the bell crank arm off at the end of the segment shaft. This put the steering wheel and steering gear out of commission and called for Fetch's inventiveness. With nothing but the tool box repairs he began arranging a new steering device, in which the steering column, its gear and wheel were not used. The drag bar was pinned onto its thimble at the front end connecting with the tie rod, and the broken bell crank of the segment shaft at the rear end was lashed to the lower end of the emergency brake lever, which was taken off and mounted on the end of the hub spanner wrench, which was placed across the end of the footboard and held thereto by a pair of shackles used for spring repairs. This done, the man steering sat on the tool box on the right running board and worked the emergency brake lever, pulling back to turn in one direction and forward for the opposite turn. This done, Fetch towed the car for a couple of miles, when it was started off on its own power and made the 50-mile run to Canton, averaging 15 miles an hour.

Eighth Day—Canton to Pittsburgh

By E. Ralph Estep



HOW THE DEERE CAR LANDED IN THE CANAL



FETCH PULLING DEERE CAR OUT OF THE CANAL

PITTSBURG, Pa., July 19—Lined in military exactness along the boulevard in front of the Schenley stands a row of dusty, mud-stained, somewhat battered, rubber covered cars. A throng of Pittsburgh people parades up and down the broad way, looking at the cars. On the lawn a band plays national airs. In the hotel lobby a couple of hundred tourists, almost as dirty and weather-beaten as the cars they have traveled in, besiege the clerk or bustle about on a hundred different errands.

The day has been a strenuous one. It started off easily enough over a rough clay and sand road both narrow and winding. The Gliddenites have become used to such going. The morning sun shone blandly. The quiet farming country of the kind through which the tourists had traveled steadily for over a week gradually shifted to a coal mining and oil region. The rolling fields of grain became woody hillsides. Tall wooden towers denoting oil wells replaced church steeples. Mills replaced factories. Slate and coal took the place of gravel. The creeks and ditches ran with a heavy orange water of iron and other mineral taint. The woods seemed more wild and were full of underbrush. The towns, by their houses, showed that antithetical richness and poorness which characterizes all the mining country, where people get rich quickly or die poor slowly.

The whole procession banded along persistently and not many cars were laid up by the road. As they ran they climbed. The increasing altitude, known by the greater length of climbs than of coasts, told of the approach to mountain country. As the foothills increased in height they increased in ruggedness. The road wound, mountain-like, around the sides of steep inclines and had a roughness that threatened springs and exploded tires. Rocks, instead of bushes, projected into the high-

way and the shrubbery stuck out above, like a huge green blanket made to hide the hard face of nature. Where the land was farmed it was farmed arduously. The fields were all sloping and many a pasture seemed too steep for the cows and horses to climb. The joker en route brought forth many new versions of the aged yarn about horses whose left feet are longer than their right that they may walk around these hills comfortably. It was also told that on several farms the cows were tied to stakes by long ropes that they might not slip down the fields into other farms.

The smoother streets through the towns gave little rest to the travelers because most of the towns are laid in confusion on the side of some rock slope or set down in the bottom of a narrow valley. Beaver Falls gave several miles of brick pavement. Then was continued the rough climb and now into a semi-wild hill country where the road became nothing but a crooked stream of rocks. For mile after mile the way led upward through the hills like the stony bed of some dried mountain river. Occasionally the Ohio river would be crossed, as the narrow road debouched into a tangle of wider roads at the bed of a marshy valley. Sometimes, half-way up a high hill, there would be wide views across the dirty, yellow, rain-swollen river that had the fascination of real mountain scenery for the tourists.

The last discouragement to be met by those who were late or had little time to spare in order to make their schedule was a long winding stretch where there is being built a new stone road along the mountain ledge of rock on the hillsides. It will be a beautiful road when it is finished. Now it is rough with freshly laid crushed stone, big foundation rocks or uneven clay. Added to the roughness of the road was its actual blockade by teams hauling rock

up and down it, or stopped to leisurely unload the stone in immense piles in the middle of the roadway.

Finally the new road smoothed into a stretch where it is nearly finished, and this, in turn, became a perfect macadam speedway hung on the sides of steep hills, fast enough for anyone and too fast for those who dislike taking reckless turns which may end in being pitched off over a steep bank into a deep ravine.

The road swept down into a valley, turned almost directly backward in a wide hairpin, then rose steeply on the other side of the valley. From this point one could see far away the road just covered, and watch other cars several miles behind, appearing as tiny bugs on the yellow tape that wound into the forest and was lost. Ahead, the climb continued as a winding plank road up which we steadily plugged with the boards rattling loudly underneath. The approach to Allegheny was rough and progress through the city was slow and laborious on account of traffic and numerous turns. Up and down town, over the hills and around the corners the procession went, seeking the long bridge to Pittsburgh. Here toll was paid and then the cars scampered into the midst of a congestion that added many a minute to times already dangerously near the penalization point. Many thought the checking-in place was in the heart of the city, and were considerably upset to learn that they still had several miles to go to the Schenley. Once through the traffic of the center of town, however, the cars raced up the macadam boulevard which curves to the top of the hill, overlooking the big smoke-mantled mass of buildings forming the main city. Then there was a short run at the top directly to the broad driveway in front of the Schenley, where was displayed the longed-for black and white flag denoting Glidden headquarters.

Eighth Day—Canton to Pittsburg

By David Beecroft



STODDARD-DAYTON EMPLOYEES INTERESTED



FIRESTONE HOMESTEAD, WHERE LUNCH WAS SERVED

PITTSBURG, PA., July 19—Today's run from Canton to Pittsburg, 105 miles in 6 hours, may truthfully be styled an eliminating trip. From the start of the tour in Cleveland, the contestants have been saying, "Just wait until we reach the mountains and the perfect scores will vanish." Credence was placed in these assertions, but no one looked for seven perfect scores to be wiped out the day before the real mountain climbing began, as the latter part of today's run was over what may be properly termed the foothills of the Alleghenies.

Besides seven cars losing perfect scores, seven others were penalized. Of the seven perfect scores, five were club contestants for the Glidden trophy, one a contestant for the Hower trophy and one contestant for the Glidden certificate. The Gliddenites to fall were No. 25 Lozier, with 57 points against it, due to a broken rear platform spring; No. 28, Gaeth, 3 minutes late; No. 32 Oldsmobile, 3 minutes late; No. 55, Frank Nutt's Haynes, 2 minutes late, and Kirkam's Maxwell, No. 41, 37 minutes late. The Howerite who lost out was No. 102 Thomas Forty, penalized 77 points, due to time lost because of a broken front spring. Fred Pardee's No. 10 American Mors lost its perfect score in the contest for a Glidden certificate. The other cars to receive penalization were No. 24 Mitchell, 181 points, due to broken springs and tire troubles; Mrs. Cuneo, No. 26, 8 minutes late on arrival, caused by not knowing the exact location of the Schenley hotel. No. 43 Acme bent its rear axle on striking a wedged trench on the road, causing the wheels to spread, thereby compelling slower travel to Pittsburg, where the car arrived 27 minutes late; No. 56, Dayton's Columbia, 69 points because it nearly buried itself in a mud pool in the foothills. So deeply was this machine mired that it required 10 minutes' digging to obtain access to the starting crank to

start the motor. Besides the power lent by the engine a team of horses was needed to extricate the machine; No. 58 Maxwell lost 3 points, being late. In the Hower column Haynes, No. 112, driving a Dragon car, encountered considerable difficulty with his fan pulley, and was compelled to shift the engine back on the frame before the pulley could be fixed, entailing thereby a time penalization of 186 points.

The facts concerning many of the penalizations in today's run show that the points counted were not due to defects in the cars as much as to ignorance of the road conditions by the drivers. The first part of the run from Canton out was over clay roads on which good time was possible. After passing Salem, 33 miles out, the Pennsylvania hills were encountered, which reduced the pace considerably, but it was not until in the foothills entering Pittsburg that the real troubles began. The roads are tortuous, winding pathways, scarcely wide enough in places for teams to pass. For 3 miles a new stone road is in process of construction, and many of the cars were compelled to wait until one of the wagons drawing the stone unloaded and gave room enough to pass. Three lumber wagons, which many of the tourists met, caused at least a dozen delays of from 3 to 7 minutes each. It was impossible to pass these wagons on the road, the tourists being compelled to get out and assist in running the vehicles into the ditches and then placing them on the road again. It was due to these causes that the Gaeth lost 3 points, Frank Nutt 2, No. 58 Maxwell its 3 and Pardee's American Mors 5. The tourists were utterly ignorant of the road into Pittsburg, which from Freedom was over a different route from that outlined in the guide book. The change of route was brought about by P. S. Flinn, a member of the touring board up to the start of the tour, and who is one of a corporation

building a trolley line along the route outlined in the guide book from Freedom to Pittsburg. He declared the route to be impassable, and the tourists were forced to take the bad road which caused continuous trouble. Many reports were current during the stay at Pittsburg that the route Mr. Flinn pronounced as impassable was in good condition, and had been specially rolled with heavy road rollers a couple of days before in anticipation of the tourists. Added to these road conditions was the delay caused by passing through the business district of Pittsburg, where No. 32, the Oldsmobile, was given a wrong direction, causing 3 minutes' penalty.

The road troubles on this stage of the tour were generally confined to running gears. Mitchell No. 24, with its two broken front springs, which were repaired with wooden blocks, was forced to make a very slow journey, Driver Zirbes having to take the winding roads very slowly. Lozier No. 25, which has been running with broken front springs from Chicago, yet maintaining a perfect score, broke its rear platform spring, necessitating its withdrawal from the contest, Driver Black deciding not to attempt to go any further.

The Oldsmobile No. 32 was very late in leaving Canton. This car has had trouble with its radiator and it was necessary to make a repair before starting, the repair occupying practically 1 hour. On its run of the day Motor Age car, which left Canton last, overtook very few of the tourists. No. 102, the Thomas Forty, was picked up repairing its spring when 6 miles out of Canton. One of the White steamers was passed at Damascus. The hood was off and the driver working at the left side of the engine. No. 25 Lozier was picked up a couple of times during the day because of its spring troubles, and Dragon No. 112 was overtaken while the driver was working on his fan belt pulley.

Ninth Day—Pittsburg to Bedford Springs

By E. Ralph Estep



BEDFORD SPRINGS, PA., July 20—"Thank-ye-ma'am!" A million words could not describe today's ride of the Glidden tourists half as well as that one expressive idiom. A mountain trip of nearly a hundred miles had been a prophecy of dread the night before. Tense determination replaced enthusiasm in the hearts of those of the cross-country drivers who were still in the contests for the Glidden and Hower trophies. The prospect of beautiful scenery was swallowed up in the somberness of the smoke-laden, disagreeable Pittsburg morn- as the cavalcade pulled away from the Schenley to tackle the Alleghenies. It was a wonderful ride and a wonderful performance by the cars. Many of the tourists declared afterward that the reports of the wretched condition of the unused pike through the hills had been exaggerated. However, twelve cars were late and four contestants for the Hower trophy were put out of the running. The condition of many of the cars which had made good under the abuse on the tortuous way of uneven rock made it apparent that many more miles of water breaks would have brought disaster. Spring clip were loosened; axles were sprung; springs were flattened and a few broken, and tires exploded with exceptional frequency.

Every hill on the road traversed has water breaks 50 feet apart. As there is no level ground on the whole route there is no even road. From Greensburg to Bedford is one continuous stretch of oblique water breaks from 1 foot to 3 feet high. Through the Alleghenies the roadway itself is fairly smooth and, looking ahead, it rises and falls and winds attractively. To rise and fall over a few water breaks is not arduous, but to rise and fall every 50 feet for 75 miles is a task that tests cars and drivers to the utmost.

The way out of Pittsburg was crooked and through a dirty, hideous section, where the roads are rough and the surroundings nothing but a great picture of heart-breaking, hopeless labor. Mills and factories add their smoke and grime to the never-dissipated cloud of smoke raised by Pittsburg industry. There was no interest here to a passing stranger not a student of social conditions.

After Greensburg, the country broadened into beautiful foothills, but a black sky still made the scene a dismal one, and the road was still rough. Chestnut Ridge was passed without knowing it, except as

a bumpy highway, but the tourists learned quickly they had reached mountain land when they began the ascent of Laurel Ridge. This is a steady climb of over 4 miles. It began 3 miles east of Ligonier and proved to be an angular shelf on the side of rocky hills. There once had been a road all of stone. It was yet all of stone, but not a road. Boulders and dornicks

hangs over a swamp. There was no swamp underneath, but great valleys and hills instead. We were still alone in our world, which was limited to a few square feet of mountain top, rising out of a boundless ocean of cloud.

Descending, the road wriggled, angled, rose and fell and was still rocky. Some of the ruggedness of Laurel Ridge was smoothed into the gentler roughness of ordinary hills. The country was not exceptional, save in its scanty population. Where a rear tire blew off we asked the gathered populace near a charcoal kiln about the road and learned we had not yet struck the Alleghenies. The rather surly, uncommunicative men told us the road was better. They told both the truth and its opposite. For buggies and wagons it became better, but for vehicles of weight and speed its water breaks made it even worse than the hammering roughness of the first big climb.

The grades were not steep, but

it was often necessary to put on the brakes going up hill in order to take the thank-ye-marns at unjolting speed.

Now the sun brightened the country. As we wound up the long, tiresome grades we were treated to rare panoramas of thickly wooded hillsides; cultivated fields of picturesque beauty in their irregular mixing of shapes and colors; rocky, barren ledges and pretty corners where the road twists around an old deserted stone house or dips into a ravine where a mountain stream laughs its way to smoother country. There was none of the grandness of western mountains, but even if these Alleghenies be only big hills they possess a measure of sternness and roughness which is reflected upon everything among them. Even is the face of the woman of the Alleghenies like unto the face of the countryside. There is beauty enough, but it is not of the gentle, cultivated kind and the corn grows in chunks instead of in rows.

As we neared Bedford the valleys became wider, the sloping mountain sides prettier and less bold and the roads more traveled. Of industry there was little, but we crossed a railway track—the first that day—and knew that the narrow road would soon sweep into a pleasant valley of golf links and wooden hotels, with organ-die decorated verandas. We had reached the end of the trip and drove into the open-air garage at Bedford Springs to count noses and ask officials for the dope on the day's proceedings.



EVEN A MAYOR GAVE WAY TO MR. HOWER

by the thousand were mixed with projecting flat rock to give the cars a hammering that was as rapid and incessant as the beat of the overworked motors.

About half-way the climb ran into low-hanging clouds, which cut off the view a hundred yards away on every side. It is probably a beautiful land of the rough kind, but its charm this morning was in its uncertainty and its solitude. Strange motoring was this, which broke into the mantle of mist enshrouding the everlasting hills. In the Packard Thirty Motor Age car we had started out early in order to be on hand at picturesque mountain places to watch the schedule tourists go laboriously by. Photographing was but a waste of films. We could see down the road for a short distance to where the picture of rocky road would end gradually in a heavy blanket of cloud. We seemed alone in the world and had no graphic knowledge of altitude or location. There was no inhabitant. Tom Fetch said the country was full of rattlesnakes, but we did not see any. After a while of waiting a slight sound—different from the rustle of trees and the incessant murmur of the lower, heavier foliage—struggled up from below and became recognizable as the rumble of a motor. Without other warning, a car jumped out of the cloud and went thumping by, almost before we had seen it.

We climbed on through the cloud and looked down on it from the top. All around us it hung like a low morning mist

Ninth Day—Pittsburg to Bedford Springs

By David Beecroft



BEDFORD SPRINGS, PA., July 20—The climb over the mountains from Pittsburg to Bedford Springs, 98 miles, which has been a much-discussed topic since the start of the tour, did not prove so hazardous today as expected; but nevertheless the perfect scores were cut down, two Gliddenites and three of the perfect-score Hower cars suffering. In the Glidden ranks Sid Black's Lozier, No. 25, which broke its rear platform spring on the run from Canton to Pittsburg, withdrew, receiving the full penalization of 111 1-9 points.

The greatest penalization of the day, and the one that created excitement among the entire tourists' brigade, and which robbed the Pittsburg club of its perfect score, was that of car No. 21, entered by T. P. Jones. The car is a 40-45-horsepower Pierce. Today's run, however, was a hard-luck story from start to finish for this car, four tire blowouts and three punctures developing on the run. Added to this was a minor accident in which one of the passengers was thrown out of the tonneau when the car was taking a water break. He received a small abrasion beneath the left eye, was unconscious for some time and caused at least a three-quarter-hour delay. A few minor adjustments in connection with the car were enough, when taking into consideration the other misfortunes, to bring the car to the checking station 92 minutes late. With the 2 minutes' leeway subtracted it left a penalization of 90 points, giving a club penalization to Pittsburg of 22½ points.

Three other Glidden contestants picked up a few additional points. Mears' Acme, which suffered a bent rear axle in yesterday's run, took occasion to repair this before leaving Pittsburg this morning by having it removed, heated and straightened in a blacksmith shop. Because of this delay the car checked in 142 minutes late. Mrs. Cuneo, in her No. 26 Ranier, lost 3 points, due to a broken spring and the generally bad condition of the roads. Kirkham's Maxwell 41 dropped 83 points today. The troubles on this car were chiefly punctures and heating of the brakes. Mitchell No. 24 repaired its broken springs before leaving Pittsburg, in which repair the spring was rebuilt and rubber buffers used.

Three perfect-score Howerites dropped by the wayside, while another withdrew because of a broken axle, leaving but two cars with perfect scores contesting for the Hower trophy—No. 104, G. S. Smith's en-

try of a 35-horsepower Stoddard-Dayton, and H. K. Sheridan's 30-horsepower White Steamer. The cars that dropped were No. 103, H. O. Smith's 24-horsepower Premier, driven by Harry Hammond, who has been ill since the run from Indianapolis, and was too sick to make the start from Pittsburg. Wallace Owen's entry, No. 111, a 35-horsepower Pennsylvania car, took the water breaks a little too fast today, and on the last stages of the run broke a right steering knuckle. A Pittsburg Packard car took Owen with the knuckle to a blacksmith shop, where a three-rivet weld was effected and which the driver thought would prove equal to taking the car to New York. At a late hour it was reported that the car, covered with a tarpaulin, was at the side of the road and that the car has withdrawn from the Hower trophy contest, taking its full 1,000 points.

The other perfect Howerite to go was No. 100, A. E. Hughes' 40-45-horsepower Pierce roadster. Hughes' troubles were an aftermath of the run into Pittsburg, on which trip trouble of shifting his gears arose. A small particle of iron got between the sliding gears and the shaft on which they slide, making it necessary to use a crow-

minutes for 97.2 miles proved none too long for a great many of the cars, in spite of the fact that three or four of the higher powered machines made the distance in 2 hours less than schedule, the cars making the best run being No. 38 Stoddard-Dayton, driven by McDonald, Arthur Jervis' Berliet and the Flinn Pierce. The road, described as being over the mountains, is not so bad as anticipated, but the last 40 miles is a continuous series of water breaks, compared with which the bumps in Glencoe, or the highest sidewalk crossing on a city street are as nothing.

As usual several cars had their misfortunes without entailing additional penalization. No. 29, G. P. Moore's Welch, broke its left front spring and checked through with a flat tire. The other Welch entry, No. 7, had a short stop adjusting its left brake, where a new adjusting knot was necessary. The Elmore two-cycle, No. 51, which is running for a Glidden certificate, and with a sealed bonnet, lost its fan belt, and had to arrange an improvised radiator-filling mechanism so water could be added from the dash without stopping the car. When the car was checked in this evening there was considerable rumble beneath the hood, occasioned by the fan difficulties. The Oldsmobile No. 32 cracked the top leaf in its right front spring. Tyler's Maxwell, No. 58, added a leaf to its right front spring. The Deere-Clark car had its broken steering gear repaired and checked in on schedule. No. 37, the 50-horsepower Meteor, collided with a street car leaving Pittsburg, and was forced to spend 2 hours straightening the front axle and steering gear, and later in the day spent 2 hours repairing the brakes. The car reached Bedford Springs at 2 Sunday morning.

Charles W. Price, who has been driving a sealed-bonnet Maxwell car from Chicago, had his difficulties today. Descending the Alleghenies his brakes, which were badly burned out, failed entirely, and he was forced to run the car into the bank to save it. This broke a front spring, and after adjusting the brakes the car continued and arrived at Bedford Springs in good shape.

No. 56, the gasoline-electric Columbia, entered by F. E. Dayton, was forced to withdraw, as the mica insulating disks in its controller cracked, putting the car out of running. It withdrew entirely from the Glidden trophy contest, taking its total penalization of 142 6-7 points.



EVEN LOGS WERE FOUND ON THE ROADS

bar in shifting them. Before leaving Pittsburg Hughes, with the aid of a file, grooved the sliding shaft, forming a channel for the piece of iron to work in. This channel was sufficient to allow of running in high and intermediate speeds, but prohibited the use of low speed or reverse. Coupled with this was also tire troubles and general hard luck, the final result being 6 points charged against the car. H. E. Coffin's No. 102, a Thomas Forty, which received a penalization of 77 points entering Pittsburg, due to troubles arising from a broken front spring, fractured its front axle today and withdrew from the contest.

Today's schedule of 8 hours-30

Tenth Day—Bedford Springs to Baltimore

By E. Ralph Estep



OVER A BIT OF SHALE ROAD

BALTIMORE, MD., July 22—"Maryland, my Maryland!" We sang the song as we crossed the state line. This was the one best day of the Glidden—the one day it was a tour as well as a contest; the day that made the whole thing worth while. In a sporting way, one may know that three cars were penalized and that Mrs. Cuneo's car, at the time of writing tonight, is still on the road with broken springs and possibly other damage. Let's forget that phase of today's trip. The part that really counted was the beautiful ride through delightful Maryland. After days and days of comparatively monotonous traveling in a fertile western land—all alike—and some hard going through a fascinating but tiring mountain country, the 140-mile trip today made the tour a success, regardless of anything or everything else.

Leaving Bedford we followed a winding, hilly and somewhat rough road across the foothills of mountain ridges visible in the distance. Ahead of us the sun warmed the morning as at noonday. Turning into the valley of the Little Juliana we followed that crooked but merrily gurgling stream on a ledge of rock surfaced with the red soil of the region.

We descended into a fir-treed valley which twisted itself around to the deep foot of Ray's hill, the first big ascent. We hesitated at a deserted toll gate half way up the gruelling climb, and then stopped the car to get the full picture of the great succession of lower hills and

shallower valleys spread beneath us at the left. Passing car after car, on the toilsome, sandy climb up Sidling hill, we found that the major portion of the tour was still intact and procession-like. At the top of this spur from the next mountain ridge, the road angled around a sharp corner and left us for the moment on a high, bold corner of the earth, whence we could only see the panorama below. When the descent was begun we looked ahead down a yellow, wavering ribbon of road to the far line of blue which meant that the whole of Scrub ridge was in our vision. As we mounted this higher hill and started downward on another of those inimitable winding, jolting coasts, McConnellsburg lay beneath like a toy village in a pretty garden. Beyond rose the stern form of Tuscarora mountain. For more than 4 miles we climbed and wound along its face with the forest of slender, closely-grown trees on the lower cliff, like a peek-a-boo waist, all but hiding the charming valley of the river away down below.

At Tuscarora's foot there is a little town called Foltz and here we took on a burden of garden-grown flowers tossed to us by the handful of people who live there. Then we hit a white stone road which wound gracefully through a region of fewer thank-ye-ma'ams and more people. Far away on our left rose the Blue Ridge, extending in almost unbroken line down into Maryland. We rolled peacefully along through a peaceful country into Hagerstown and got our first glimpse of the real southern dandy, with only a little bit of reconstruction in his soul and face.

Over the rolling hills ahead was the crest of another ridge. Flying past the white-washed houses we paid our toll at Zittlestown and impatiently climbed to the one battlefield on the road. At the top of South mountain we stopped and read the tablets whereon is imprinted the brief story of the many army movements around this sun-kissed knob, whose very peacefulness seems now to deny there ever was a war here. Slowly we went around the pretty, gentle turn where had been one of the fiercest combats of the rebellion. Slowly we drove over the road that stretched out into the wide bright valley and over which the Confederate army had retreated slowly before the pressing Union ranks.

We climbed Braddock heights and viewed the earth from a vantage point where one may see four states—Maryland, Pennsylvania, Virginia and West Virginia. Here we ate luncheon at a summer hotel and listened to war tales and explanations of the battle grounds thereabout.

We saw Frederick as it was in war time. They have built no new houses and we felt

the spirit of 40 years ago. The whole country roundabout is the same as when the armies were there and war was everything. By a detour off the route, we saw the old churches and the little law offices in one-story houses close on the street. We saw the romantic public square and the place where stood the house of Barbara Fritchie. It is torn down now and the people of the town—a younger generation—are hazy in their knowledge of the pretty story. We went out of our way to ford North creek, just as Stonewall Jackson forded it. We stopped to talk of war with gray-haired veterans who had stuck by the union when Maryland was in a turmoil of indecision. We drove slowly out of town and regretfully; past the old jug bridge and out into the rolling country, with all the mountain ridges behind us.

Like all roads which lead to big towns this one widened and flattened. Its macadam surface was now crowned, but nevertheless still there were water-breaks. We ran smoothly along and talked over the day, the scenes and the interesting features. We were content. We heeded nought the approaching signs of city life and were still dreaming a little bit when we rolled along the Baltimore streets, by a couple of monuments and many long rows of houses, all with red fronts and white stone steps. We were not in a hurry to reach the Belvidere. When we saw its red and yellow top rise above the rest of that part of town, we dutifully steered for headquarters and became once more part and parcel of the Glidden tour.



ONE OF THOSE WATER BREAKS

Tenth Day—Bedford Springs to Baltimore

By David Beecroft



BALTIMORE, MD., July 22—Today saw No. 38, the Stoddard-Dayton entered by H. C. Tillotson, of Chicago, and driven by W. W. MacDonald, robbed of its perfect score to the extent of 142 points, the car being due at 5:28 this evening but not reaching the Belvidere hotel until 7:52 owing to trouble along the road, the first the burning out of the transmission brake when on the Tuscarora mountain, where 2 hours were needed in completing the repair; the second offense befell the car at Mercerberg, 46 miles out of Bedford Springs, when the bolts holding the forward end of the propellershaft housing sheared off, necessitating a 2-hour delay, after which the car made a fast run to Baltimore. Much comment has been occasioned tonight because of the penalization of this car, which up to this morning had but two troubles during the entire run, one being the clogging of the gasoline pipe on one of the earlier days of the tour and the other the wearing through of a bus wire on the coil box which cut one of the cylinders out for the greater part of a day.

Mrs. Cuneo had trouble today, because of the water-breaks, which were as numerous as telegraph poles on the first 30 miles of the run. The task of driving over these on schedule time with a broken spring was a strenuous one. Her main trouble came at Mercerburg, the scene of the Stoddard-Dayton difficulties. When approaching the town a tire exploded, sending the car to the fence, a couple of panels of which it tore down, breaking two springs and bending the front axle in the job. The last

tourists along the route reported the car being repaired and made ready for the run to Baltimore. Its penalization as yet has not been given out.

Mitchell No. 24 suffered 60 additional points in today's run, not because of troubles but due entirely to the car's broken front springs, it being impossible to take the mountains at any speed with these disabled members. The car purposely started late to be out of the way of other contestants, and arrived late at Baltimore.

But one change is noted in the Hower contestants of today as compared with Saturday's run, namely, the withdrawal of No. 12, a Dragon driven by John Haynes. The announcement was made yesterday that in Saturday's run the bronze bearings of the countershaft in the gearset wore sufficiently to allow the gears to drop out of mesh, but not before the low-speed gear had been stripped. New bushings and a gear, neither of which was carried in the inventoried tool kit of the car, made the withdrawal imperative.

Today's run witnessed the joining of the tour by one or two that were looked upon as having not only withdrawn but abandoned the trip. The Kelsey Matheson that broke its connecting rod and crankcase in the Chicago-South Bend run, had the parts repaired and leaving South Bend on Thursday afternoon succeeded in reaching Bedford Springs at 11 o'clock Sunday night, the Sunday run being from Canton. The car will continue as a non-contestant to the wind-up in New York.

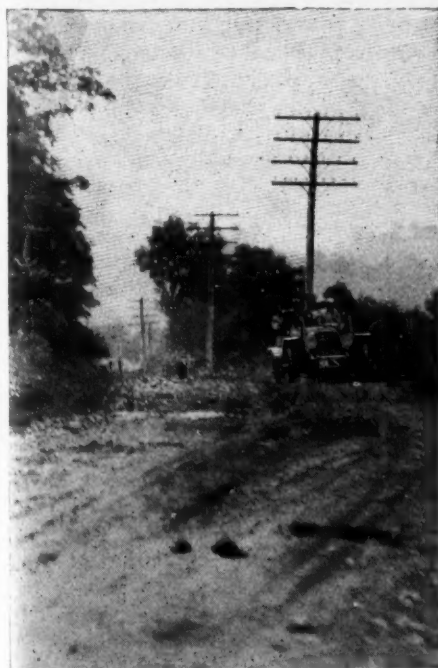
Another re-joiner was Sid Black's Lozier No. 25 that dropped out at Pittsburgh, but was fitted with new springs and reached Bedford Springs Sunday evening. Yet another in this class is No. 114, Barclay's roadster, running in the interests of the Warren speedometer. This car broke an axle in Saturday's run, but had it removed and welded with fish plate reinforcements. Wallace Owen's Pennsylvania that had broken a steering knuckle on the mountains Saturday spent Saturday night under a tarpaulin by the roadside, but with the arrival of a new steering knuckle was able to reach Bedford Springs before noon. Owen worked in hard luck with his steering knuckle repair. Thrice he welded the parts and reinforced them with three rivets, but in a few minutes the parts worked loose. The final solution was the securing a new knuckle. The troubles thus far that have resulted in penalizations have been running gears and tires, rather than motors, gearsets and their accompaniments. Stops by the roadside were the exception and not the rule today, and in fact for the last 7 days it is remarkable how the drivers have settled



ONLY A SEA OF COBBLESTONES

down to their task. Drivers, contestants and machines have struck their respective paces and seem to run over the mountains and water-breaks with a precision equal to that shown on the boulevards of Ohio and Indiana. As a consequence few roadside repairs were witnessed today, although tires suffered some. No. 16, the Royal Tourist, running as a non-contestant, broke its left front spring and made a good repair with the assistance of tire irons and some tool box equipment. Haynes No. 55 had what appeared to be carburetor trouble when 16 miles out and later in the day had to put on a new rear left tire casing. Peerless No. 50 suffered a left rear puncture. White steamer No. 48 had trouble with its motor while on the Tuscarora mountain range and many cases of tire trouble were noted.

One incident marred the pleasure of what otherwise proved one of the pleasantest runs of the tour. The Jones Pierce, No. 21, entered from the Pittsburgh Automobile Club, was the aggressor in a couple of accidents, both of which occurred at one of the toll gates on the Frederick-Baltimore pike. Car 43, the Acme, passed a rural free delivery mail wagon just before reaching the toll gate and had halted to pay the toll when Jones came down the pike at a rapid rate and after taking the front wheel off the mail wagon struck the end of the Acme rear spring, bending the supplementary spring badly and also putting the axle out a little. The R. F. D. man promises to make trouble for Jones, who refuses to apologize to either party.



ANOTHER OF THE SAME SORT

Eleventh Day—Baltimore to Philadelphia

By E. Ralph Estep



PHILADELPHIA, PA., July 23—Special telegram—Philadelphia was a welcome haven after a hot, dusty ride of 164 miles which eliminated at least two of the Glidden tourists, one by a broken rear axle and the other by a broken crankshaft. A few other cars were late and a couple were left on the road to struggle in tonight. The day's trip suffered by comparison with that of yesterday in Maryland. It came through country pretty enough in itself but not picturesque enough to satisfy after the excursion through the region of battlefields and southern gentleness of folks and countryside. The first 15 miles was a rough macadam path, much patched with newly-laid but unrolled stone. The cars went off in a bunch and early began scrapping for dustless positions in the long line which swung up the wornout turnpike. The first real country road, whose natural prettiness overbalanced its lack of smoothness, was struck at Reistertown. Here the highway wriggled off to the left into a rolling and luxuriant country. Eventually it dropped into a low, wide valley, heavily shaded and perfumed with a generous growth of mint. The water breaks which had been followed by the tourists for several days continued. Many of them were even worse than any thus far encountered, on account of being at the far side of depressions, almost as deep below the normal road surface as the cars are high above it.

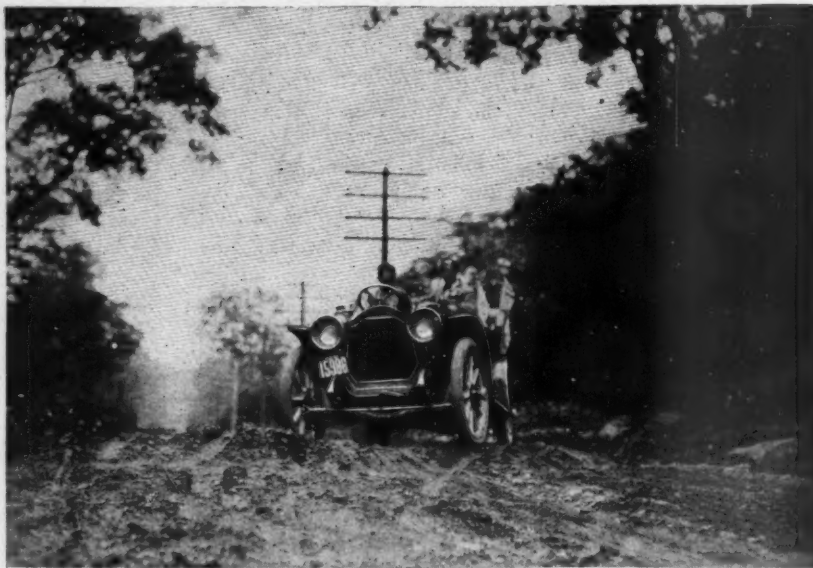
It was in this section—hard to characterize by any more definite term than hilly farm land—that the toll gates recommenced and the road became once more macadam. It continued macadam to the Quaker City, but most of the way it was poor macadam and all of the way it bore the universal trade mark of the southeastern highway—the dreaded thank-yem'am. Profiting by their experience of the day before, the Gliddenites were well supplied with nickels, pennies and dimes. The route book told the amount of toll at each successive gate and as a car approached one of the white poles which barred the way, the man behind the driver would hold out the correct amount. Thus there was little stopping or time wasted at the toll gates. In some instances where

correct change was not on hand the motorists yelled ahead: "Get 10 cents ready," and the exchange of money would be done on the fly. The toll gate keepers, we were told, get on the average \$10 a month and the house and patch of ground at the gate. In most instances today the gates were tended by the girls of the family. There were thirty-one gates and the total toll was \$3.

The old plantation homes of rebellion times, which attracted so much interest

of cultivated land gave high and pleasing color, but soon the road dipped to a lower elevation or swung around a corner and the monotony began again. A glimpse of an iron stand pipe over the hills told of the approach to a modern village, and through a rather poor imitation of an Illinois farming town we sped from Maryland into Pennsylvania.

Once in a while during the morning we struck fine macadam ways whose surface was new and whose water breaks were slight and well graded. Then all of the Glidden tourists whose wheels still turned burned it. A couple of stone quarries promised new interest but they quickly passed. The Susquehanna at Wrightsville was a boon to the dusty, tired travelers. It furnished a limited river view that slowed the cars to sight-seeing pace as did a toll bridge, said to be the longest in Pennsylvania, and to cross which a toll of 60 cents was charged each car. The railway tracks ran down the middle of its narrow width. It is open to traffic when a train is expected.



MOUNTAINS OF MUD THAT WERE ENOUGH TO DISCOURAGE ANYBODY

going into Baltimore, now changed to modern farmhouses, and the whitewashed stables were replaced by huge red barns of the dairy. The typical southern people gradually gave way before the stolid Pennsylvania Dutch and the Maryland glad-hand chilled to a curious stare. Even the megaphonists en route failed to arouse ordinary interest in the people along today's line of march. The towns were poor in most instances, save such larger ones as York and Lancaster. Even in these the parties which stopped for lunch had difficulty in obtaining good things to eat. Lancaster came to the rescue, however, with free lemonade.

The monotony of bumping over a rough road through a fertile land had little variation of valleys, hills and level sections, and was relieved only by the casual study of its queer characteristics. School houses were scarce and the people talked the condition. Instead of bright blue, pink and clean white dresses of the southern and western country lasses, there was the dull, dark calico of little lone girls, who perched on fences or stood silent and unresponsive at their gates. Sometimes the hills would grow bigger and the valleys broader. Oddly spliced patches

country home near Lancaster held a big party of motor enthusiasts who cheered the party and shot off firecrackers. Occasionally the nearly-modern sameness of the local architecture would drop back into the historical days and provide quaint stone and plaster churches and residences. However, the tokens of Philadelphia's influence, gradually appearing, were welcomed eagerly. The whole bunch seemed glad to get out of the listless atmosphere of the Dutch region and onto the shady boulevard which Philadelphia has stretched out like a saving arm. Here in the semi-suburban country the beautiful homes and naturally gardened estates give the hillsides the appearance of English country. At Malvern appeared the first personal sign of the promised Quaker reception. A huge banner bore the Philadelphia Press "Welcome" and a representative of that paper handed into each car refreshments and flags entitling the car to go through all succeeding toll gates free of charge. At Bryn Mawr baskets of fruit were donated by the Bryn Mawr Auto-Motor Co. The Quaker City Motor Club entertained the Glidden tourists tonight at a smoker in the Hotel Majestic. Sight-seeing motor cars took the tourists there.

Eleventh Day—Baltimore to Philadelphia

By David Beecroft



PHILADELPHIA, PA., July 23—Special telegram—Today's run, next to the last of the Glidden tour for this season, was sufficiently arduous to cause the withdrawal of two Glidden contestants, one, No. 7, the Welch entry, that had a penalization of 12 points received the first day of the tour in its collision with a bridge, and the other, No. 55, Frank Nutt's Haynes, that had but 2 points penalization against it, received on time entering Pittsburgh. The Welch broke its crankshaft when 20 miles out of Philadelphia and was left on the roadside in care of the driver. It got a penalization of 250 points. Frank Nutt with his Haynes met trouble 38 miles out when the right wheel pivot of his rear axle broke, due to crystallization. The last straw in breaking the axle was a slight road hole that the wheel took rather heavily. Word was sent to the Haynes agent in Philadelphia and a new axle sent out so the car, although withdrawn as a Glidden contestant, will continue to New York as a non-contestant. The Haynes axleshaft is of nickel steel, but even this much-discussed metal was not equal to the strenuousness of the tour. The car received 142 6-7 points penalization.

Two other contestants were penalized today, one being No. 26, Mrs. Cuneo's Rainier, which was disabled in yesterday's accident. Owing to the car not reaching Baltimore last night until 12:15 and then in none too good a condition it was impossible to get away early and doubtless Mrs. Cuneo preferred to take today's run leisurely.

The other Glidden car to go by the boards was No. 10, the American Mors, entered by Fred Pardee. When 100 miles out of Baltimore the right member of his rear platform spring suspension broke, necessitating its removal and the fitting of a new spring which fortunately was inventoried with the carried parts. The penalization for the value of the spring and for lateness in checking-in of course puts the car beyond obtaining a certificate. This car did not have a perfect score at the start of today's run, having been given 3 points on time marked against it on the run into Pittsburgh.

Wallace Owen's Pennsylvania, No. 111, contesting for the Hower trophy, had its

troubles today—a cracked cylinder and water-jacket which necessitated the frequent filling of the radiator.

To the other non-contesting cars on the run nothing remarkable occurred. Kelsey in his Matheson was early out of Baltimore and arrived at the checking point early. The No. 37 Meteor was passed a short distance out of Baltimore, held up by motor troubles, and No. 52, the Deere-Clark, was passed midway of the run, making fair speed with a broken spring. The Gaeth appeared to have motor troubles as the car was passed with the mechanic working on the motor while the machine was running. Again it was overtaken later in the day running with the right half of its bonnet up. No. 7, the Welch, already reported as having a broken crankshaft, was passed 4 miles out of Baltimore, halted because of motor troubles.

Besides these few motor difficulties several tire punctures and blowouts marred the otherwise easy run of 174 miles in 10½ hours. No. 22, Perkins' Packard, lost its rear right tire early in the day and not more than 2 hours later had trouble with the same tire.

Today's route along the stone road lead-

the entire tour and tried the patience of drivers and passengers because of the extra large water breaks that regularly punctuated it. As yesterday, toll gates were very much in evidence and pausing at times every mile to deposit the coin cut down the cars' running time. Notwithstanding all this the route was an easy one, not a single machine finding trouble in negotiating it in the allotted time. Many of the entrants thought the schedule should have been 9 hours.

The standing of the two perfect score cars in the Hower contest as well as that of the one other car running with a 6-point penalization remains unchanged. The Stoddard-Dayton maintained its clean sheet as did Sheridan's White steamer. A. E. Hughes in his Pierce seems to have struck the perfect score pace again.

Tomorrow will witness the start for the finish. Most of the tourists believe the nineteen perfect Glidden scores, the two perfect Hower scores and the one perfect score car contesting for the Glidden certificate—the Cabanne American Mors—will make a clean performance over the 95 miles to New York. The Buffalo club has four of the perfect scores that will start off tomorrow, these being No. 9, Thomas; No. 11, Thomas; No. 17, Pierce, and No. 27, Pierce. Next comes the Pittsburg club with three perfect score cars, No. 14, Pierce; No. 22, Packard, and No. 29, Welch. The New York Motor Club has the following four: No. 3, Pierce; No. 31, Walter; No. 39, Berliet; No. 48, White. Cleveland has four—No. 42, Royal; No. 47, White; Nos. 49 and 50, Peerless cars. Two belong to the Automobile Club of America—No. 19, Premier, and No. 33, Reo. The Chicago club has but one left, No. 54, Haynes. The De-



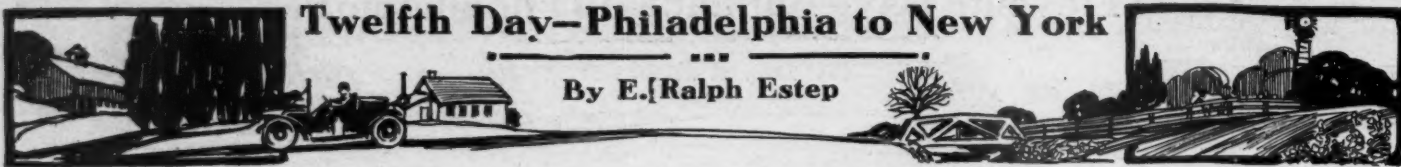
A COMBINATION OF SAND, GRAVEL, CLAY AND OTHER BAD ROAD MATERIALS

ing through York, Pa., and Coatesville, entering Philadelphia by way of Ardmore and Bryn Mawr, would have been a most enjoyable one from start to finish had it not been for those irrepressible water breaks that cross the road on every hillside as regularly as the telegraph poles that line the side of it and at the level stretches where the driver likes to open a little. For 8 miles in the center of the trip the stone road bed became a winding clay pathway which provided the biggest dust cloud of

troit and Winchester clubs are left without a single perfect score car for the last day of the run. Should these contestants repeat the clean sheet performance of the run then the Glidden trophy will pass into the hands of the Buffalo club with a penalization of but 18 1-5 points against its nearest competitor, the Pittsburg club, with a debit of 22½ points. Not less interesting will prove the contest for the Hower prize, which, it looks, will be a tie between the Stoddard and White.

Twelfth Day—Philadelphia to New York

By E. [Ralph Estep



WHERE ROAD AND RAILROAD ARE RIVALS FOR MILES AND MILES

NEW YORK, July 24—Special telegram —In single file and closely following one another an even fifty dirty, mud and dust-covered and in some instances dilapidated motor cars, peopled by equally jaded tourists, slowly paraded up the great White Way from Twenty-third street ferry to Fifty-second street. Here it turned eastward to Fifth avenue and thence north to Columbus circle. In front of the park the cars were swung into a line facing the street. This was the end of the Glidden tour of 1907.

There was no great gala occasion. New York did not hesitate in its other affairs to do more than glance at the Gliddenites who had come back to Broadway after a 1,500-mile roam through the central states. When the column formed at the Manhattan side of the ferry there was a show of interest on the part of the exotic residents of the neighborhood and a few ferry passengers stopped to ask where the motorists came from anyway. Only the mounted and bicycle police seemed to be really interested in the forming of the unusual cavalcade. When all of the dusty ones had arrived in dear old New York by ferry boat loads of fifteen each the word to crank was given and the procession picked a cautious way through the congested traffic toward Broadway. In the lead was Chairman Hower with Mr. Glidden in his car. Behind followed the two confetti cars. Then came Mrs. Cuneo, given this position of honor at the request of the tourists themselves on account of her being the only woman driver in the tour. Behind were the three press cars and then the eighteen perfect score Glidden cars, the two perfect score Hower cars and the one perfect score car competing for a Glidden certifi-

cate, but unattached to any club. The noncontestants, Glidden and Hower cars which did not have perfect scores and eliminated cars which had stuck to the run for the run's sake brought up the rear of the procession.

New York was not impressed. A few people along Broadway stared comprehendingly, a motorist here and there nodded and flippant ones advised the tourists to "wash up." When the caravan was stopped at Columbus circle and brought to dress parade a scanty crowd of idlers lined the opposite sidewalks. The newspaper photographers took a lot of pictures and the newspaper men did a lot of checking up. There was no clubman on hand to greet them and no home agency folks to give the glad hand to those who had come through the trip in their respective cars. Tom Fetch said the radiators needed calcium chloride.

After having been given lemonade at all



BOULEVARD IN THE COUNTRY

try roads of New Jersey. This brought about a scorch from Newark into Jersey City, to get to the checking-in station at the court house well within the limit. the small towns in Ohio, bouquets and sandwiches in some of the larger ones, beer and ginger ale at the motor car factories en route, smiles and thrown kisses from all the girls for 1,500 miles and a reception or two that warmed the hearts of the whole bunch, the best the Gliddenites got in New York was a copy of a catalogue carefully handed to each by an enterprising but wholly mistaken young man who represented some spring repairer concern. Photographs having been taken, the word was given to disperse and the tourists went their several ways to meet at 8 o'clock tonight at the Astor to engage in the wind-up of official affairs.

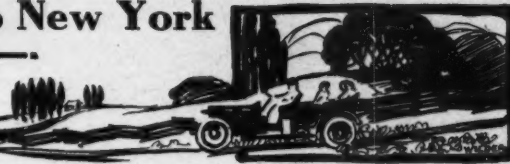
The ride today was a peaceful parade through New Jersey. Last evening it was announced that the column would form in regular order, which would be strictly maintained throughout the day, Chairman Hower acting as pacemaker. Followed by the three press cars and led by the confetti wagons and a couple of disabled cars which were allowed to go on early in order to be promptly on hand at the finish, the chairman left at 6:30. At 7 the first perfect score Gliddenite was sent away with the rest of the bunch following.

The pacing squad was caught at Trenton. Then on the level boulevards of Jersey the Glidden tour was veritably a parade across the state. Rolling smoothly and quietly along the smooth stone road, the cars were just far enough apart to avoid one another's dust and not always that far. It was an outing rather than the last lap of a strenuous overland contest in which many had fallen by the wayside. The ride was enjoyed because the day was bright and the country pretty, although not peopled with enthusiasts to cheer and welcome as had been the sections previously traveled. The forming of this parade line was the only practical way of preventing a wild scramble for first into New York honors. Had the tourists been allowed to set out under no control the wide smooth macadam would have tempted them into desperate racing, the end of which would probably have been disaster.

Chairman Hower, regardless of what we may think of him in our individual opinions, certainly is deserving of great credit for the way in which he managed a very restless crowd today and kept them in orderly line under the strongest possible temptation to scorch. He made a mistake in setting the pace a little too slow.

Twelfth Day—Philadelphia to New York

By David Beecroft



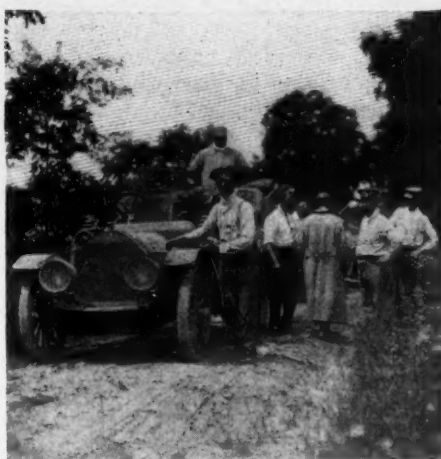
NEW YORK, July 24.—Special telegram —As far as mechanical troubles of the cars were concerned on the last day of the Glidden tour today's run from Philadelphia to the court house at Jersey City was the biggest kind of a parade, the machines all taking the easiest kind of a pace over the macadam stretches of New Jersey. The pace was so slow—5 hours 30 minutes for 95 miles over perfect roads—that the cars all made perfect scores. Only two of them had stops for tire troubles, the Buse Packard and one of the Maxwells. The other cars were simply a part of the long khaki caravan that slowly wound through an endless dust cloud from the start in Philadelphia to New York.

The eighteen perfect score Glidden cars that started from Philadelphia, as well as the two perfect Hower cars and the many penalized cars, presented a begrimed appearance, every one coated with mud and dust, many with broken fenders, headlights without glass, speedometers out of commission, tail lamps smashed, upholstery with slight cuts in it and the bodies very much scratched. Not one of the cars could be taken into a garage to get washed and this fact, coupled with the general condition of the machines, was responsible for many of the curious along the line of route declaring the cars to be out of use.

One of the strongest reminders of the hardships endured by the cars over the varied surfaces of the run was the big supply of worn tires that decorated the right footboards of most of the cars and which also were tied on behind the tonneaus. The Matheson car came in with three badly-worn casings strapped at the right end of the driver's seat, every one of them worn threadbare and absolutely useless other than as reminders of the water breaks of Pennsylvania and Maryland.

The tour raised much opposition against flat tread tires with many of the tourists, the complaint being that the tire fabric cracked, due to the uneven thickness of the thread portion, which is thickest at the line making the edge of the flat tread part. None of the contestants made use of metal-studded tires during the tour, all preferring the round tread or the Bailey tread.

On wet roads tire chains were universally used, but in many cases they wore out remarkably quick, some contestants being in need of a new set before half of the tour was completed. The trouble lay in the breaking of the links connecting the ends of the cross chains with the two circumferential chains, these links cutting quickly, after which the free end of the chain worked ruin to the fender. Once



C. J. GLIDDEN GIVING INSTRUCTIONS

one cross chain was worn out the other went quickly. Not a few contestants lost their chains entirely, the Motor Age car seeing no fewer than six on one day in the wake of the tourists. Little damage was done by the chains coming off, the only cases of moment being the destruction of a fender and the wrapping of the chain around the brake drum and damaging the brake connections and adjustments.

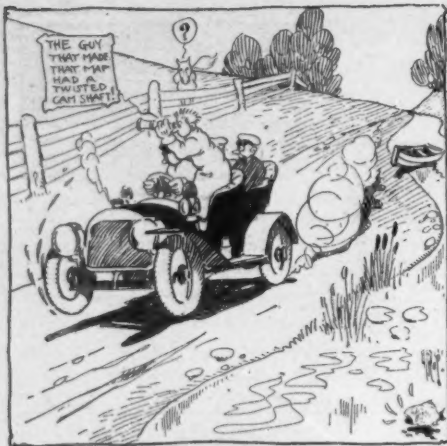
Practice makes perfect and in no department of the Glidden was this more apparent than in the handling of baggage and the attempt to make two things occupy the same space at the same time. The tour this year, for the first time in its history, was without the official baggage wagon, compelling each tourist to carry his luggage in the car or express it. Those who tried the express game did so but once and then discovered to their sorrow that they would not get their baggage for at least a couple of days.

One passenger who expressed his suitcase from Pittsburg Saturday morning did not get it at Bedford Springs at all. Each tourist confined himself to a small-sized suitcase and often two passengers used one between them. In 90 per cent of the cases these were packed in the tonneau and strapped there, a strap being provided for the occasion which was secured at one end to the right side of the front seat and at the opposite end to the left side. No one attempted to carry suitcases on the running board and few had them on the trunk rack.

Three sealed bonnet affairs were pulled off during the run. The first was the Arthur Jervis entry with a Berliet No. 39, which had its bonnet officially sealed by a committee before leaving Cleveland. The seals remained intact until the middle of the tour, when a piece of brass got between the timing gears and started cutting them. It is a mystery as to how the brass got there and why it did not get into the gears earlier, the solution being that it must have been held in the solid grease until such time as the grease getting slightly warm shifted the brass against the gears. A few minutes with a file repaired the damage. The Elmore car, No. 51, started out with a sealed bonnet and had the seals in place at the completion of the run. The car was running as a contestant for a Glidden certificate and not as a member of a team for the Glidden trophy. The third sealed bonnet was a 20-horsepower Maxwell, driven by Charles Price, of Chicago. The machine, carrying No. 97, made the run to New York from Chicago, during which run the car seals were inspected every night as well as at the end of the run and found intact.



ONE OF THE BEAUTIFUL VIEWS IN THE ALLEGHENIES



WHERE'S THE LOYALHANNA?

The Glidden way of putting on tires—get on your back under the machine and attach a monkey wrench to the part that needs adjustment.

As J. W. Mears was driving his Acme through Adamsburg on Friday a woman rushed out, crying that a car had run over and killed a man. To be sure a furlong further on a man was lying in the road. The Acme outfit rushed and picked him up. "Drunk" was the verdict of the coroner's jury. By the way, the village cut-ups are very gay on this tour, jumping in front of the cars and doing narrow escape stunts for the applause of merry villagers.

In running out of Pittsburg A. L. Peterson's Meteor, driven by J. S. Slager, jammed between a trolley car and a telegraph pole, ripping off its running board, twisting its front axle and injuring its steering gear. The car was jacked up and the axle straightened with a loss of 2 hours. The car limped into Bedford Springs at 2 a. m.

Though it was the first experience of Lucius Tyler as an endurance run pilot, the Bostonian has proved himself one of the best drivers and mechanics on the tour. On Friday, for instance, though the Maxwell had five punctures, two blow-outs and a broken spring, he brought it into Bedford Springs on schedule time.

The "Deep Sea Deere," which made the plunge into the old Ohio canal, was the center of attraction in Bedford Springs park on Sunday. Tom Fetch had to tell again and again the story of how he fished the "boat" out and made the novel steering gear repair.

No. 13, George M. Davis' free lance Thomas Flyer, had for passengers Duncan Curry, of the New York American; Russell A. Field, of the Brooklyn Eagle, and James T. Field, of the Boston Globe. This outfit had a high old time all the time. On their arrival at the finish a toy cannon in the tonneau was touched off. Curry

Little Scraps of

was appointed navigating officer and sat with the driver, the executive committee sitting in the tonneau behind. Every question was put to vote, and it was a case of 3 to 1 against Curry every time. By the time Bedford Springs was reached he would eat out of the hand.

At Bedford Springs one contestant received a big box by express which looked as if it would fit around a front axle nicely. Heaven forbid the mention of names. It might have contained something else.

To Congressman George B. Huff the tourists were indebted for the 4-mile stretch of macadam east of Greensburg. The Honorable George, they say, got tired of paying taxes and getting nothing for them, so he planked down \$4,000 and thus got a good run for his money and his motor car.

The blue and white badges made it possible to buy cigarettes easily in South



Bend, for the tobacconists who deal surreptitiously in the forbidden fruit knew the badge meant a man who was not a government detective.

At Canton the biggest and best reception en route was given by local clubmen, assisted by a bunch of Clevelanders who had come down for the occasion. Open house at the hotel and entertainment at outlying parks made the evening a busy and hilarious one. The occasion added fresh proof to the argument that the smaller towns are better hosts than the big ones.

Grinding out copy was a pleasant task on Sunday to a small coterie of newspaper men, who had the black servitors of the Bedford Springs hotel place small tables for them under the trees of the park. There in the umbrageous shade with the mountains and picturesque hotel for a

background and the valley and distant hills for a prospect they gave birth to yards of inspired paragraphs.

Pacemaker Hower had his troubles Saturday and could not pace.

Much-sought-for souvenirs of the tour were the post cards distributed daily by Tucker, the Peerless publicity man, picturing a scene of the day's run. Of course a Peerless car had happened to get in front of Lazarnick's camera at the psychological moment.

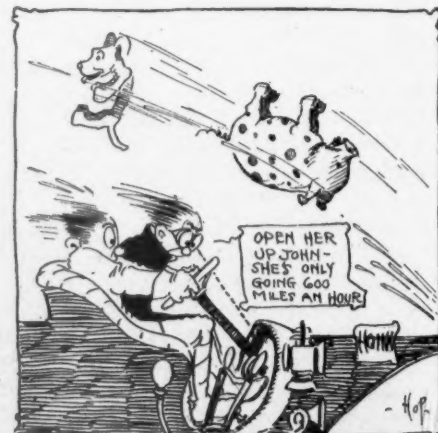
Sunday afternoon half of the tourists told the other half that the Bedford "girl in brown" now was attired in pink.

In the allotment of rooms at the hotels the tourists were graded "best," "medium" and "ordinary" on the cards; but democracy was preserved by putting owners, drivers and mechanics in the same room and often in the same bed. But, strange to say, the advance agent got few kicks, a room and a bed being always welcome under any conditions.

The village Shakespeare of Loughlin gave the tourists as souvenirs of their trip over the Allegheny mountains a history of "this historic village, on whose soil the immortal Washington had trod and on whose hills our ancestral fathers had combatted the deceptions of the wily Indians." That held the eminent journalists of the tour for a minute or two.

The tourists, so say the pathfinders, got far better roads over the Allegheny mountains than the pilot car encountered. For this they are indebted to Paul C. Wolff, of the Pittsburg club, who made many trips through the towns en route agitating the repair of the highways.

Este, Joe Ryan's understudy, did his chief great credit as a humorist and racon-



HAYNES DOES 600 MILES AN HOUR

Glidden Confetti

teur. At every overnight stop the witty Chicagoan had an appreciative audience to his clever quips and merry tales.

One of the prettiest receptions given the tourists anywhere along the line was that by the Firestone Tire & Rubber Co. At the old Firestone family homestead, in Ohio, and at a corner of the tour road the Glidden people were given fresh milk in glasses and each car a daintily-decorated basket containing lunches, cigars and stone bottles of milk.

Dai Lewis was unmercifully joshed for an error in Friday's route, which placed the Loyalhanna river to the left instead of to the right of the road. For an hour or more the route book holders were scanning mountain side and valley for a peep of that Loyalhanna river which all the time was flowing peacefully at the left of the road.

Someone remarked to Este, the Chicago Inter-Ocean midget, that his backbone had been shortened an inch in bumping the Allegheny mountain bumps. "Look at me," replied Este, "I was 6 foot tall when I left Pittsburg."

An incident of Friday's run was the greeting at Ligonier by the village band. It was lined up on the tavern porch. The music emitted by this Allegheny mountain Orpheum sextette was as amusing as any stage burlesque of a village band ever heard. The hospitable hayseed horn blowers meant all right and got a hurrah of appreciation from almost every car.

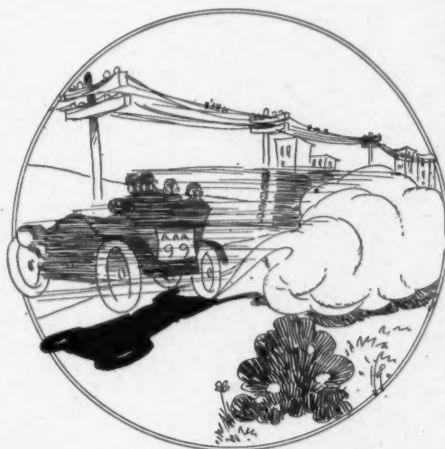
It was very generally remarked that it was no wonder that the Pittsburg and Buffalo club teams had evolved as top-notchers in the contest for the Glidden cup. They had gone about picking their teams with an eye to the probable survivorship of the cars. Only high-price and grade machines were accepted. The

Chicago, New York, Cleveland and Detroit clubs, on the other hand, had thrown open the places in their teams to all their members. It is openly stated that the Smoky City and Electric City clubs rejected not a few members, who were thus kept out of the tour if they were not willing to sail under the colors of another club.

The highest speedometer-attested rate of going on the tour must be credited to John Haynes and the Dragon. Entering Canton his speedometer read 600 miles an hour.

F. Ed Spooner claims that he and Mrs. Orrel A. Parker counted 1,821 water-breaks between Pittsburg and Bedford Springs.

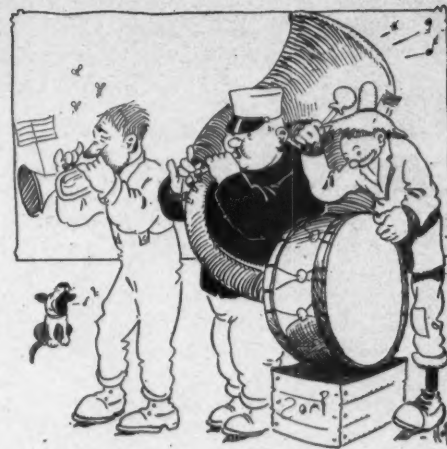
Chairman Hower had many speed lectures to give out to those who could not resist pressing too heavily on the throttle. July 12 the Motor Age men waiting by the roadside to take pictures saw him



go by at something like 50 miles an hour. Still it is but human to cover miles at the car's top speed over the beautiful white ribbon of macadam which formed a large part of that day's road.

At Bedford Springs the wise ones loaded their pockets with small change in order to be ready to deal quickly at the twenty-two tollgates of Monday's run.

There was no more bitterly disappointed man in the hard luck division than H. O. Smith, whose Premier runabout had to be withdrawn at Pittsburg with a perfect score, owing to the illness of its driver, Harry Hammond. "Hammond," said he at Bedford Springs, "had been ailing all through the tour, but had kept from me the real truth, saying that probably the water had upset him. After leaving Canton he became worse and vomited fre-



LIGONIER'S CHEERFUL GREETING

quently. He was our crack driver and we had none to replace him. We were banking on our runabout, for our touring car carried 500 pounds more baggage. In view of the fact that our touring car had a perfect score and our pilot car has performed without a hitch we had every reason to believe that no car in the Hower competition had a better chance of winning than ours."

Mrs. Cuneo has scored a great hit with the populace as the only woman driver on the tour. Her fame has preceded her and she is constantly pointed out. She is invariably cheered as she finishes at the night controls.

Tom Fetch has a picturesque vocabulary, which under emergency he uncorks. It was loosed when after a half hour's sweating at the pump it was learned that Estep had replaced in the shoe the old tube and carefully wrapped up the new one.

The White brigade has been a good Samaritan outfit. The Diamond tire steamer towed R. G. Kelsey and his Matheson 17 miles into South Bend after their mishap and R. H. Johnston in his non-contesting White drew the disabled Elmore into Indianapolis.

At Bedford Springs the telegraphing facilities for the newspaper men were 2 miles away, at the town of Bedford. In order to keep the newspaper men from trudging back and forth to file their stories two Packard Thirty cars were put into the service of taking the press "to town." One was the Motor Age car driven by Tom Fetch and the other a private touring car loaned and driven by Russel Huff, chief engineer of the Packard Motor Car Co.

Arno Peterson, sponsor for the Meteor, is the champion hard luck artist in the ditch line. Still he goes on pleasantly and says he will lose all the points in the tour before he quits.



WHAT THE TOLL GATE MAN GOT

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GLIDDEN TOUR AND SOME OF ITS LESSONS



CHAIRMAN HOWER, of the touring board of the American Automobile Association, may now sit down and ponder over such portions of the annual tour of the association as may be deemed successful and may congratulate himself on the fact that there have been some successful features. As a matter of fact, however, what he ought to do is to sit down and search the records for the failures, for only in knowing the failures will profitable lessons be learned. It must be granted that in many respects this has been a great and remarkable tour—or rather a remarkable test—and it will have been discovered that in other respects it has been something of a failure. Too much must not be said against the management, even when all the mistakes have been gathered together and made into one immense mass, for to handle such an affair is a thankless task at best and one requiring more than ordinary intelligence and generalship—and with all credit to Mr. Hower, much of the success of the affair should be credited to Messrs. Ferguson and Lewis, who have been, in reality, the practical managers of the tour.

This has been more of a test as to the reliability of American-made cars than anything that has taken place in the history of American motoring, not excepting the contest of 1903, and that so many cars should have gone through such a long and hard journey with perfect scores is surprising, when the conditions of the contest and the state of the roads are taken into consideration. It has been about as good an advertisement for the American-made car as could have been devised, and all the more so when it is remembered that not a single foreign maker felt enough confidence in his own wares to enter his product in a battle over American roads against American-made cars. It would appear to be another nail in the coffins of the makers of foreign cars.

There are some things about the tour that will bear considerable investigation and which will need some whitewashing. Let Motor Age quote from the news story printed in another column:

Owing to persistent and growing rumors to the effect that many contestants for the Glidden and Hower trophies have been secretly replacing parts on their cars, the committee today ordered a general inspection of all competing machines. The inspection was carefully made and the entrants were not allowed to interfere in any way. Even the personal baggage of entrants was searched for spare parts,

and in several instances parts were found on cars that had not been listed at the start. This, according to the rules, would disqualify, but when the whole matter was taken into consideration it was virtually decided to simply add such contraband replacements to the parts originally scheduled. Thus they will count against the cars in the final reckoning. More replacements were discovered than had been expected by the committee, but the laymen were not greatly surprised. For several days illicit work on cars has been common gossip. Even at garages, where there is a shortage of working officials, adjustments and even repairs have been made openly before checking-out time. On the road cars have occasionally disappeared from the procession to reappear on time at the checking-in station. Hence it has been gossiped that side road and barn work has been frequent. No one ever will know the whole story of the Glidden tour. Chairman Hower thinks he knows, but he does not.

Is it possible the officials of the American Automobile Association will overlook any such deception on the part of any of the contestants? Will those contestants who have been honest, whether they were successful or not, permit this sort of deception? Can the American motor car trade afford to permit this story to go to the world and not attempt to place the stigma where it belongs? Does the industry wish to hide the facts, if there are such facts, or would it prefer to be rid of such trickery? It may be there was no deception, but enough has been said and

enough suspicion has been cast to warrant the most rigid inspection and the greatest amount of publicity, whatever is learned of the results. This is only fair to the honest competitors—and dishonest competitors ought to be known, whoever they happen to be.

As a tour the affair has come to be something of a huge joke—it has been as far away from a tour as it possibly could be. It has been strenuous for a reliability contest; in this respect it has been more severe than any that could have been planned. It has been the severest test of driving skill and with an exhibition of better driving in a great many cases there would have been a better showing so far as the cars themselves were concerned. No maker ever really intended his product should be driven over such roads as were encountered and at the speed that had to be maintained; that minor accidents happened to some of the cars is nothing more than ought to be expected. It is little short of wonderful that so many perfect scores should have been made.

As a tour the annual run of the American Automobile Association has ended; as a test it has had an auspicious opening. Another year it should be termed by its rightful title and a real tour inaugurated, if it is found that the members of the organization feel that a tour is needed and will prove beneficial in any manner.

WHAT WELL MIGHT HAVE BEEN KNOWN



MILLION-DOLLAR motor tracks are far from being a financial success if one believes the reports emanating from England since the running of the first meet on the new $3\frac{1}{4}$ -mile oval at Weymouth and the first note of warning sounded by the English should be heeded by Americans who have been contemplating investing in speedways designed solely for motor car racing. The British critics hold that races on the Brooklands track are tame despite the whirlwind speed possible, because of the fact that the cars are so unevenly matched that close finishes are rare. It is pointed out that at the first meeting only in one race were two cars in the finishing straight at the same time and the stretch is $\frac{3}{4}$ -mile in length. Exorbitant prices are charged for admission, and not the least of the evils is the red tape which the promoting company is using in the conduct of its speedway. Doubtless all this is experience Englishmen are gaining for the first time, for they have not seen so

much track racing as have the people of the United States. Track racing, generally speaking, is a farce. Seldom do two cars come together in a bruising finish, the general result being a procession 5 seconds after flagfall. To put more than two cars on an American track at the same time is a dangerous experiment and it is rare a track meet does anything for the general good of the trade or the sport. Not much more can be said of road racing, although it must be conceded that in long events the industry often learns valuable lessons through the cars developing weaknesses that only a contest of this sort can bring out. If one probed to the bottom he would hardly find great sport in seeing cars dash by a grand stand at lightning speed without semblance of a contest and the result in doubt until the clockers post the times of the competitors. The sporting side of the game can best be conserved by the promotion of reliability runs, hill-climbs and other tests in which the owner can take part and in which he can experience the joys of contest.

The End of the GLIDDEN



SLIGHTLY BATTERED BUT STILL IN THE RING, HE RECEIVES A FATHERLY WELCOME

NEW JERSEY HAS RIVAL

St. Louis Wants the Vanderbilt and Offers a Course for Pardington's Consideration

St. Louis, Mo., July 22—A. R. Pardington, of New York, acting chairman of the racing board of the American Automobile Association, is in communication with the Business Men's League of St. Louis, the Automobile Club of St. Louis and the Missouri Automobile Association relative to holding the Vanderbilt cup race here October 19. The failure of the New Jersey senate to pass the house bill granting the A. A. A. authority to hold the race in that state has resulted in Mr. Pardington taking up the matter with St. Louis, with the officials of the commercial organizations and the automobile clubs. The Perkins measure has been passed by the house of representatives of the New Jersey legislature, but opposition has developed to the Lee bill in the senate, which concurs with the house bill. Many of the leading New Jersey newspapers are opposed to the bill, and reports that reach St. Louis are to the effect that there is much doubt as to its the passage through the senate.

Mr. Pardington has assured the St. Louis people that this city will be seriously considered in the event the New Jersey legislature fails to pass the bill. The Business Men's League, through President James E. Smith, is lending its active co-operation to bring the great motoring event to this city. Mr. Pardington stated in his letters that it was absolutely essential that militia be furnished to patrol the route and keep back the crowds, and the motor and business organizations have taken up the matter already with Governor Joseph W. Folk. The governor has given them assurance that he will permit the use of the militia for that purpose if it can be done legally. If he finds there is no law under which he can call out the militia for an event of this kind it is understood that he will throw no obstacles in the way of the militia volunteering its services.

Officials of the automobile club say that a first-class course, approximately 30 miles in length, can be found in St. Louis county, on the outskirts of the city. David R. Calhoun, the millionaire dry goods man, is chairman of a committee that is selecting the very best possible route in St. Louis county. A 30-mile course, which with a little work can be put in first-class condition, will be offered the committee if it decides to visit St. Louis. In the event the St. Louis county course does not meet the requirements the committee will be taken to Pike county, 85 miles north of St. Louis, for an inspection of the famous Pike county roads. There is a triangular road in Pike county, 21 miles in length. This was the pioneer good road in the west, and was constructed more than 50 years ago. It has always been kept in

perfect condition. For the most part it is comparatively level, but there are a few steep hills and sharp turns, and the course runs through the town of Clarksville, a village of 1,500 people. Many years ago some of the bicycle races were run over this course.

The Business Men's League has expressed a willingness to furnish all the money that may be needed to bring the event to St. Louis and properly entertain the visitors. The international balloon races for the Bennett cup will start from St. Louis October 21, and elaborate arrangements are being made for this event. The league is particularly anxious to bring also the greatest event in the motor racing world to this city. The league has charge of President Roosevelt's river trip, which starts at Keokuk, Iowa, in early October and ends in Memphis, Tenn.

ATLANTIC CITY'S OFFER

Atlantic City, N. J., July 22—From almost every angle the course which the enthusiasts of this place are suggesting to the Vanderbilt cup committee as an ideal one for the next big race has all those in the northern end of the state beaten to a standstill. The plan is to start at Absecon, a point on the present Philadelphia-Atlantic City route and about 7 miles from here; then straight away for a dozen miles or more to Egg Harbor; a right-angle turn to New Gretna, about 15 miles, and return to the starting point via Port Republic—a trifle under 40 miles for the course—which has hard roads, level country, no railroad crossings, few towns and no necessity for calling out the militia to do guard work. A few extra watchmen in each of the four or five small villages through which the course passes and at the turns would be amply sufficient to safeguard the public. Absecon, Pleasantville and this city could accommodate the crowds. On such a course it would not be necessary to start the race at daylight. Aside from pleasure travel, the traffic over the course is always light. Arrangements could easily be made for 4 or 5 days for practice previous to the race. Unless the committee must have a place where a half million can watch the race and where a spice of danger must be added to make things doubly interesting to the onlookers, Atlantic City's offering should certainly be considered.

DASH ACROSS OHIO

Cleveland, O., July 22—Last Sunday F. H. Coleman and S. M. Levy, in an Oldsmobile, made a non-motor stop run across the state at an average speed of 20.4 miles an hour. Starting from the public square here at 3:32 a. m., they reached Fountain square, Cincinnati, at 5:07 p. m. the same day, the distance being 253.1 miles and the time 12 hours 24 minutes. A portion of the route was bad on account of the rough roads, but from Bucyrus south, long stretches of good roads were found.

FIND FAULT WITH OVAL

English Critics Declare Sport at the Brooklands Track Is Tame—Too Much Red Tape

London, July 13—The first open meeting on Brooklands track has come and gone and the general verdict is that unless the sport is better and closer finishes are secured, the game will quickly peter out. Added to this is widespread discontent at the exorbitant charges and absurd red tape with which everything is swathed at Weybridge. There was only one race in which two competitors were in the winning straight together—and it is ¼-mile long. In the \$5,000 Montague cup race the actual winning car was sent a lap too many and in spite of an elaborate electrical timing apparatus said to distinguish the times of the front and rear wheels the one good race was rendered a dead heat, but no times were furnished for any of the races. The sand dust on the track was bad and the whole affair dull and as slow as a funeral. The only excitement it has left behind is an allegation by Charles C. Jarrott that oxygen was used as an auxiliary fuel in the car in which he was a dead heater in a 60-horsepower de Dietrich with Newton in a 45-horsepower Napier. There was nothing in the conditions to prevent this, but Jarrott apparently considers that he was unfairly handled in that the oxygen enabled Newton to come again in the winning straight when his engine had apparently begun to die. On Saturday next the second meeting will be held, but the entries are not many. The special race proposed for Humber 15-horsepower touring cars fell through because somebody carelessly put the cylinder dimensions of an obsolete type down to represent the 15-horsepower car, consequently there were only a few entries instead of the minimum of twenty stipulated for. Then the race specially programmed for tourist trophy cars—i. e., competitors in any of the series of races for the trophy—has only secured three entries. This out of a possible thirty or forty shows that the trade is up against an exploitation which gives it no voice in the game for which it provides the sport.

There will not be any more 24-hour trials at Brooklands for some time at least because the management has found the residents in the Weybridge and Byfleet neighborhoods object to the noise and turmoil occasioned at night by such work. Also it was found that the track is not yet sufficiently consolidated to successfully withstand the continuous strain of driving over it along the same line for 24 hours. Jarrott had intended having a shy at the record. When Edge first declared himself Jarrott engaged the track for July 12 and 13, but his partner, W. M. Letts, going to the United States caused him to cancel the dates. Now, however, he would be

glad to get them back if he could.

Brooklands also will be used in connection with the next international event to be promoted by the Royal Automobile Club, which will be in the shape of a 2,000-mile reliability run in 1908, beginning in June and including a hill-climb, gasoline economy test and a high speed run on Brooklands track. This big affair will not take the place of the tourist trophy race as was first supposed. The tourist trophy event will survive, but it is more than probable it will not be run on the basis of fuel consumption next year. The reliability will be divided into classes and points counted in each of the three contests—speed, economy and hill-climbing much as is done in the Herkomer tour.

RUN FOR OWNERS ONLY

St. Louis, Mo., July 22—The Automobile Club of St. Louis has officially selected the route for the reliability contest which will be held September 14. The route is approximately 90 miles in length, and traverses the most picturesque section of St. Louis county. Only owners will be permitted to enter the contest. Roy F. Britton, secretary of the Missouri Automobile Association, and James Hagerman, city collector, who has offered the cup as a prize to the winner of the tour, completed the preliminary inspection of the course Saturday. The tour will start from the St. Louis club, at Grand and Lindell avenues, and proceed south 3 miles to the Gravois road, thence 11 miles to the Denny road, 5 miles to the Manchester road, 8 miles over Manchester and Dougherty ferry roads to Valley Park, to Hill road, 4 miles; Manchester road 4 miles to Ellisville; Olive street and Bellefontaine roads to Link road, 14 miles; to Lackland avenue, 2 miles; to St. Charles road, 3 miles; to Natural Bridge road at St. James, 7 miles; east on Natural Bridge road to Bridgeton, 3 miles; north to Florissant, 4 miles; east on Parker road to Spanish lake, 7 miles; south on Bellefontaine road to Broadway and Prairie avenue, 9 miles; west on Prairie to Florissant avenue and east to Grand avenue, 1 mile; south on Grand avenue to St. Louis club, 3 miles.

J. A. ALLISON WEDS

Denver, Col., July 20—Nursed back to health and happiness by the glorious climate of Colorado, Mrs. Sara Cornelius Parker, of Indianapolis, Ind., was yesterday led to the altar by J. A. Allison, of the Prest-O-Lite company, of the bride's home city. The wedding took place at Colorado Springs and was a quiet affair following Mrs. Parker's illness. The ceremony was performed at the First Methodist church at high noon, after which a wedding breakfast was served at the Broadmoor hotel, where Mr. and Mrs. Allison will spend their honeymoon. Mrs. Parker came to Colorado Springs about a year ago for her health, and is a member of a prominent family of Indianapolis.

TRUSTEE FOR THE KNOX

Concern Building Air-Coolers Makes Voluntary Assignment —To Continue in Business

Springfield, Mass., July 22—The Knox Automobile Co. has made a voluntary assignment as a protective measure. In a statement issued by E. H. Cutler, president of the company, he says the reason for the action is what might aptly be termed excessive prosperity, or better, too much business for the company to swing its capital. A. N. Mayo has been named as trustee, and all buildings, equipment and stock of the company go with all the real estate in the assignment. The company's business has shown a steady growth from year to year, and in no year has it done the business that it is doing at the present time. Had it not been for the backward season, the company would have been able to get along with its present capital, it is said. In behalf of the company Mr. Cutler has made the following statement:

"The Knox Automobile Co. having found itself embarrassed by lack of ready money and having consulted some of its larger creditors, has upon their recommendation made an assignment for the benefit of all creditors to Alfred N. Mayo, of Springfield, and it is expected that by this course the company will be able to continue its business by securing the additional working capital it needs. The difficulty is due largely to the fact that the capital is too small to handle the large business under present conditions. The inventory just taken shows that the assets are nearly double the liabilities and sales this year have been larger than the previous year, but owing to the exceptionally bad spring weather they have been somewhat smaller than was expected and the company therefore found itself with more merchandise and less cash than was planned and could not secure the necessary financial aid to tide it over. With a splendid car, increasing business and a surplus, together with a reputation for good workmanship and fair dealing which has earned the good will of both their customers and creditors, it would seem that the plans already on foot for reorganization with largely increased capital cannot fail to succeed and that there will be practically no interruption of business."

According to Mr. Mayo, who has been appointed trustee, no attachments have yet been filed against the property of the company, and there are no over-impudent creditors. However, it was deemed best to make an assignment in order that the company might not be at the mercy of any creditor. A meeting of some of the larger creditors was held on Saturday and the present action was taken with their advice and consent. In Mr. Mayo's statement the Knox Automobile Co. is capitalized at \$363,000 and has debts totaling between

\$400,000 and \$500,000. The inventory is said to show assets around the million mark. The officers of the Knox Automobile Co. are E. H. Cutler, president; William E. Wright, vice-president; A. E. Smith, treasurer, and H. G. Starr, secretary. The factory will not shut down and the officers will continue to run the business as if nothing had happened.

The business was commenced in 1900 as a partnership, and in 1901 a Massachusetts corporation with a capital of \$60,000 was formed, the stock being taken by the partners, and has remained principally in their hands. The product of the company has been an air-cooled gasoline car exclusively. In this line it is a pioneer.

In 1900-1 the product consisted of one-cylinder runabouts with three road wheels; in 1902-3, four wheels, single-cylinder runabouts; in 1905, two-cylinder touring cars were added to the line, and in 1906 a 35-40-horsepower touring car with four vertical cylinders, and which was, at that time, the largest air-cooled car made in the world. This model has been continued. For the season of 1907 a smaller four-cylinder car was designed. The manufacture of commercial cars was commenced in a small way in 1906, and that department has grown steadily since that time.

CLEVELAND'S PLANS

Cleveland, O., July 22—The committee on contests to be held in September have decided on the week Labor day comes in as the most convenient for all. The sealed bonnet contest will be one of the most interesting. It is proposed that the machines run 5 or 6 days with their hoods fastened down. The rules will be rigid and checking stations will be established to prevent any violation of the speed limits. In the efficiency contests all electricities will be admitted. They will run until their power is exhausted and some other stunts will be introduced. In the commercial efficiency contest the cars will receive burdens and be required to run at a high rate of speed. They will also be required to change their speed at various places and perform other feats to show their efficiency.

TOUGH GOING IN LONG RACE

New York, July 23.—News of the Paris-Pekin race comes in a cable dispatch from Kazan, which says that the Itala, driven by Prince Scipio Borghese, has arrived there after a tough journey from Perm, the roads rivaling those in Siberia in badness. One of the wheels of the car collapsed on a deserted part of the road. The travelers lashed branches of trees to the spokes and continued to the nearest village, where repairs were made. The day the party left Perm they met a string of milk carts and more than a dozen of them were upset. No one was hurt, the only victims being nine sparrows and one crow, which were too slow to get out of the way when the car was racing along the Kirghez steppes.

GLIDDENITES' SUNDAY AT BEDFORD SPRINGS

BEDFORD SPRINGS, PA., July 21—A foolish plan combined with a stiff-necked hotel management gave the Glidden tourists an unsatisfactory Sunday rest which was nearly as much of a frost as the Chicago fiasco. Saturday afternoon when the travelers steered around a bend in the macadam boulevard leading out of Bedford and caught their first glimpse of Bedford Springs, lying snug on the mountain side in true realization of souvenir postal card beauty, they thought the anticipated holiday would be a memorable one. They might just as well have taken their knowledge of the springs from the postal cards. The appearance of the place was about all they got. "Got" is the right word here, according to its dictionary meaning: "to obtain with effort." And most of what was wanted they did not get at all—i. e., good food.

Bedford Springs lies in a high altitude valley. The back yard is a steep hillside. The front yard is a well-gardened lawn on the floor of the valley. The hotel itself would be rambling if it went in more directions than one. Rather, it is linear and is an eighth of a mile long. One end is old and shaky, the other is new and colonial in exterior form. From it a long white colonnade runs to the road and bridges it to the magnesia spring on the opposite hill. In the magnesia spring is water which must not be drunk less than a half hour before mealtime, while back of the main shed is a spring of "sweet sparkling" water which can be drunk any time. There are stables, a lawn tennis court, golf links and the advertising writers' et cetera.

The scene at the checking-in was a brilliant one. The clean cars of summer residents mingled with the travel-stained tourists to clog the main avenues and make the place look a little like the Garden City hotel on the eve of a Vanderbilt cup race. On verandas and lawns women in light-colored and white dresses, young and old men in flannels and children in white duck contrasted strangely with the begrimed, tired Gliddenites. The combination proved to be oil and water. No crowd of people encountered on the tour has shown such open dislike as did this one. One woman was heard to remark to her son: "George, how would you like to see your father come into a hotel looking like that?"

This was the attitude. It reached from dining room to the wretched sleeping rooms at the far end of the oldest building where the tourists were stalled. With empty tables by the score, but "reserved for our regular guests," the Glidden folks were sent into the servant girls' annex to eat. In every small detail there was dissatisfaction; at every turn a throw-down. The hotel men of all grades were almost insolent in their treatment of requests. The

OFFICIALS INSPECT CARS FIND PARTS NOT LISTED

big swimming pool was their chief solace.

A lost day is not much, but it teaches much. Tours of this kind must be managed in a way that will give the tourists at least ordinary comfort at every stop or they will cease to be tours and become hard factory contests. If they be factory contests they must be run on a strict contest basis and not on a half-formulated plan which decides nothing, means nothing and does nothing except create an "event" for the sake of having one.

Owing to persistent and growing rumors to the effect that many contestants for the Glidden and Hower trophies have been secretly replacing parts on their cars, the committee today ordered a general inspection of all competing machines. The inspection was carefully made and the entrants were not allowed to interfere in any way. Even the personal baggage of the entrants was searched for spare parts. In several instances parts were found on cars that had not been listed at the start. This, according to the rules would disqualify, but when the whole matter was taken into consideration it was virtually decided to simply add such contraband replacements to the parts originally scheduled. Thus they will count against the cars in the final reckoning.

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"This has been the grandest tour ever held in any country," said Charles J. Glidden, "when one considers the number of miles covered and people carried. The roads were far better last year, however. Seventy per cent of the roads so far encountered in a foreign country would have been closed to travel as dangerous. In Europe I have run across roads closed to travel, have got permission to go over them and have found them better than those we have traversed. I have been much impressed by the skill of all American drivers in navigating these awful highways. The management of this tour by Chairman Hower has been excellent and I hear few complaints. The club team idea is a solution of the tie danger and is prov-

ing popular. I prophesy that we will have fifteen clubs at least competing next year. I am not inclined to favor the classification idea and would prefer for the cup contest one primarily for the highest grade cars so as to evolve the best."

Naturally changes in the rules for next year came in for much discussion. The combination of time schedule and replaced parts penalization seemed to meet with general approval by contestants and newspaper critics. There was, however, a very considerable majority in favor of classification by price next year, with the setting of different time schedules for each. For instance, it was suggested by way of illustration that there be three classes—\$3,000 and over, \$2,000 up to \$3,000, and under \$2,000, and that if the schedule calls for 19 miles an hour for the high-price division, the middle division be scheduled at 18 miles and the low division at 17 miles. It is argued that it is unfair to the high-price cars to make them compete on the same basis as the cheap cars, and equally unjust to compel a low-priced car to compete on the same footing with a top-notch. There is, of course, a big contingent to hold to the present theory that the tour is to evolve the best car, whatever its price.

It brought back memories of "winter tours 'neath sunny skies" to those of the southern circuit chasers who had been voyagers in Morgan's flag-to-flag race, to be greeted at the desk of the Bedford Springs hotel by W. H. Wing and J. W. Green, of the Colonial hotel, Nassau. H. E. Bemis, who manages the Bedford Springs caravansary, is still at his hotel at Atlantic Beach, Florida, and will not be north until later in the season.

Many of the tourists are in high dudgeon at this place over receiving bills from the Dennison hotel at Indianapolis for cafe supplies never ordered and rooms never occupied. The advance agent had evidently booked the rooms and the hotel no doubt looked to the men enrolled to make good. The cafe bills were a mystery, however.

The practice of carrying extra 5-gallon gasoline tanks on the running boards or in the tonneau was abandoned after the first 2 days, practically all of the makers discovering the uselessness of the scheme, as gasoline and oil were obtainable in every little town along the route. Although plentiful it was not to be purchased at the same price, some dealers charging 17 cents and others boosting the price to 30 cents, the high water mark of the tour.

Saturday on the road over the Alleghenies the tour passed a roadside picnic of fully 500 persons who had gathered from miles around to get a view of the widely-heralded Gliddenites. Among the trees were hitched over 200 teams.

ART OF TREATING STEEL FOR MOTOR CARS

THE advance in the art of motor car building cannot be better illustrated than by taking up one leading topic in reference to the manufacture of the new alloy steels, which has marked an epoch in the art in the past 2 years. But a few years ago the motor car manufacturer had available for his use only low-carbon steels, which have been considered, and are considered today by most manufacturers, as quite good for the purpose. These low-carbon steels, ranging in carbon from 20 to 40 point, greatly simplify manufacturing operations since they require almost no treatments in their handling. No special annealing would be necessary in the drop-forging after leaving the hammer, and they could be then machined at high speed, running as high as 90 feet per minute; and, if the part in question were a gear blank, after the cutting of the teeth, the gears could be case-hardened by the ordinary simple process without the aid and great care required when pyrometer is brought into use.

The price of this steel generally ranged between 2 and 4 cents per pound. It will be seen from this that the total cost of material and the labor was comparatively small. The steel itself gave but very little range in treatment. Its tensile strength was neither lowered nor increased materially by any treatments that could be resorted to. Hence the manufacturer had little opportunity to exercise his skill in the nice engineering of the various parts to secure suitable strength, and decreases or increases the physical character in the metal requisite for the purpose intended.

When we come to chrome nickel steels we find at once a material that lends itself to a wide variety of uses. Arriving at the plant in the raw, unannealed state, at a cost anywhere from 20 cents to \$1.20 per pound, it will have to be annealed, and this process, conducted with but very little latitude in the degrees of heat, must be continued for some 90 hours, and carefully cooled. It is then ready to be machined at a cutting speed of about 35 feet per minute.

After machining the piece goes to the hardening and tempering department, where it receives a series of careful treatments, varying, of course, according to the uses to which the part is to be put. To illustrate, two examples will be given; but before doing so it might be mentioned that chrome nickel steel has a range of treatment which enables one to get from the same piece a tensile strength of only 100,000 pounds, with an immense defective range—that is to say, by cutting the ultimate strength down the piece is made so soft as to be able to bend almost double, like a hairpin, without breaking, thus making it suitable for places where vibration might attack and crystallize the metal. Or this same piece, if used in some place

A. E. SCHAFF DISCUSSES MAKING OF NEW ALLOY

where immense resistance to torsion or direct shock is necessary, could be treated to give a strength of 250,000 or even 300,000 pounds tensile strength; but in the latter case it would be at the expense of the qualities just mentioned, and the metal would be hard and yielding, so that while it would stand an immense amount of stress in steady pull, on the other hand if subjected to intense vibration it might readily break.

Of the two examples referred to above we will take up the pivot-axle upon which the front wheels are mounted. Anyone will readily see that the safety of the occupants of a car depends not altogether upon the strength contained in certain parts—bearing in mind the illustration above—but upon its life. All metals are strong enough, as a general proposition, to resist the shock of an accident; still most of them, if highly treated, will quickly succumb to the disintegrating strains of vibration. Therefore a pivot-axle should be treated to give a low ultimate tensile strength with a low elastic limit in order that the metal should not be in such high tension as to be subject to attack by vibration strains. Automatically the metal is in a more mild condition and can be bent in a number of alternating directions before showing any damage to its fiber. Such a piece would naturally more readily bend than that which is treated for a higher tensile strength; but at the same time it would be safer to have the piece in a condition where it would bend than where it would break. Hence the particular treatment given to the pivot-axle.

To get the results above described in the pivot-axle the steel, when received from the manufacturer, is very carefully forged at a very low heat, being struck an innumerable number of light blows, with the temperature range of only about 100 degrees. This means quick cooling and constant reheating, and reduces drop-forging almost to a hand-forging process, with the advantage, however, that the metal, by being formed in dies, is given a better shape. After drop-forging the metal must not be put on the cold ground surrounding the hammer but upon a bed, so that it will not become chilled too quickly and injured. It is next annealed very carefully in the manner first outlined. When machined it is reheated and hardened and tempered. The treatments, of course, in this piece vary considerably from those of the transmission gears, as we are now aiming to get a tensile strength of, say, about 110,000 pounds to the square inch, with a large defective movement. In all of these operations of heating, quenching and drawing pyrome-

ters must be used, and when the number of degrees of variation must not exceed 30 and the temperature runs as high as 1,450 degrees Fahrenheit it will be seen how carefully these operations must be conducted to produce the exact results.

We now come to example No. 2, taking the forging and treatment of the transmission gear. In order that the modern motor car may be kept down in weight and to yield the most horsepower per pound of car weight all the details must be carefully studied and finely engineered, or one will produce a very heavy car with a low percentage of power. Hence heavy wear on the tires and all moving parts. To meet these exacting conditions, while it is necessary to employ large factors of safety in the construction of a high-class motor car, they must be so skillfully placed as to give the requisite strength required in every part without undue weight. Even the old steel could be continued in a transmission provided enough of it were used, but this would mean excessive weight, and the manufacturer of the high-class modern motor car must use the new alloyed steels in order to cut down areas and weights and still leave larger factors of safety than heretofore. The transmission gear being subjected—with the modern disk clutch—to small shock and very heavy torque, having most of its strains come upon one, and at best not more than two teeth at a time, must be given a treatment that will yield a very high tensile strength of, say, 225,000 pounds to the square inch, with a corresponding increase in its elastic limit. That is to say, although the steel for this purpose might be exactly the same base as used for the pivot-axle just illustrated, still a treatment is given to yield 225,000 pounds tensile strength. Instead of the piece being capable of bending almost double without breaking it would probably bend but few degrees before it would yield and break away. However, the conditions to be met are so different from the case of the pivot-axle that it is highly desirable to give it this treatment.

A treatment in the case of the gear would be, at the base, the same as for a pivot-axle. It would go to the drop hammer; would be treated just as carefully; cooled as slowly; would then be annealed about 90 hours, and would be ready to be machined at a cutting speed of 35 feet per minute. After it is machined and the teeth cut the gear must be carefully treated so that it will not warp in shape, as these high-class alloyed steels are much more sensitive in this respect than the older formulas; the treatments in number are about the same as for the pivot-axes, excepting that they are carried higher and drawn less. An even greater amount of watchfulness would be necessary where a high treatment is given to see that the variation of degrees is kept close.



ONE OF THE NEW BOULEVARDS IN INDIANAPOLIS—NORTH CAPITOL AVENUE

Plans Economy Test—The Minneapolis Automobile Club has decided to hold a 1-gallon economy contest the first of September.

Pennsylvania's Strength—Up to July 1 the state highway department of Pennsylvania issued 15,240 licenses, or more than for the whole of 1906, when the total for the year was 14,082. For the first 6 months of 1906 there were granted 10,959 licenses.

Butler Is Strict—Butler, Pa., has passed an ordinance making 8 miles per hour the limit for motor cars on the city streets, 4 miles per hour rounding corners and 2 miles per hour in passing street cars. Ten days in jail or a fine of \$10 is the penalty.

Quakers Not Slow—In one of the appropriation bills which Philadelphia's city councils recently approved was a \$4,000 item for the purchase of a motor car for Fire Chief Baxter, "to enable him to make better time to fires," and a similar item for the purchase of a car for Director of Public Safety Clay.

Another New Club—The Youngstown Automobile Club, of Youngstown, O., has been organized with these officers: Trustees, James A. Campbell, C. A. Cochran, J. R. Squires, Dr. C. R. Clark, Dr. W. H. Bilehner, D. B. Klingensmith and George Day. This board will work with the regular officers which will be chosen shortly.

Glidden's Plans—Mr. and Mrs. Charles J. Glidden, who have driven their Napier 39,768 miles in thirty-six countries, twice encircling the globe, will continue their tour of the world, leaving London about August 9 for a 2,000-mile drive in England and Scotland, over routes not heretofore driven by them. Mr. Glidden wishes to make as a part of his world's tour the drive from Land's End to John O'Groats. Following this, drives will be made in Norway, Russia, Spain, Portugal and countries around the Mediterranean sea, and

the world's tour of 50,000 miles in fifty countries will be completed in the South American republics in the year 1911. The drive commenced in London in 1901.

Kaiser Building Track—Emperor William, of Germany, enthused over the recent Taunus course race, is reported to be building a 23-mile circuit on his estate at Schorfheide. It is to be a private road and William is paying the bills himself.

May Tax Cars—According to Corporation Counsel Desbecker, of Buffalo, that city may decide to levy personal taxes on motor cars. Assessor Schmidt, of Buffalo, says the board of assessors of that city will take up the question of taxing motor cars as personal property as soon as the work of investigating real estate is finished.

Medal for Darracq—One of the minor prizes in the grand prix was a medal for the driver of the car with the smallest gasoline consumption. This prize was won by Rigal in the Darracq, who had 9.4 gallons of gasoline left at the end of the race. In the tank of the Barillier Brasier was 9.3 gallons; the Baras Brasier had 8.6, the Caillois Darracq 8.0, the Szisz Renault 6.8 and the Nazzaro Fiat 2.5. Each man was allowed 53 gallons of gasoline for the 478 miles of the race.

Elks Enjoy Motoring—The motor car played a prominent part in the entertainment of the Elks, who last week crowded into Philadelphia. Especially was this the case where the wives and daughters and sisters and cousins of the antlered throng were concerned. Every day and all day local Elks who owned cars placed their machines at the service of the entertainment committee, who saw to it that the fair ones were given at least an hour's outing. Two big trips were made—on Sunday afternoon and Wednesday morning. Repeating was overcome by issuing a ticket good for one ride to each

Elkess as she registered at the women's headquarters at the State Fencibles' armory.

Tarring a Dusty Road—Main street, Buffalo, from the city line to Clarence, N. Y., is being changed from the dustiest highway in that end of the state to one without dust. Contracts have been let for treating the road with a tar preparation. The cost is about \$600 a mile. About a half-gallon of tar is used to each square yard of road.

Ride for Old People—The Wilkesburg Automobile Club, of Wilkesburg, Pa., has arranged a rare treat for the inmates of the aged women's home in that place. On July 25 it will take every member of the home who is able physically for a spin around the city boulevards. Dr. W. R. Stephens, president of the club; W. G. Ewing and Dr. W. C. Cook are in charge of the affair.

Inventor Discouraged—Al Martin, of Hartford City, Ind., has decided that home-made motor cars are not what they are cracked up to be and has finally sold his outfit for \$15 and invested part of the money in a railroad ticket to his home in Portland. He left Atlanta, Ga., last October in a combination wagon-motor car of his own construction, run by a 6-horsepower engine. During the last few miles of the trip he used an old horse and mule for steering gear, then the engine gave out. When he reached Hartford City he sold the whole outfit for \$15.

Farmers Don War Paint—The fact that Superintendent of Highways Frank E. Bogardus, of Onondaga county, New York, inspects roads in a motor car has now become a political question and may have considerable weight in the campaign next fall. The farmers who cannot be persuaded to see anything good in a motor car object to this superintendent, who was formerly a farmer himself, spinning about the county, leaving trails of dust and a smell of gasoline behind him. Supervisors will be elected in the fall and it is said in some of the towns the farmers will make the candidate pledge himself in favor of the removal of the present superintendent.

Gophers as Road Educators—A little Glidden tour will be taken by members of the Minnesota State Automobile Association and R. J. Smith, secretary of the Minneapolis club, and C. C. Evans, proprietor of a Minneapolis garage, have gone over the proposed route in a Mitchell car. The objective point of the trip is to be Duluth, a distance of 150 miles. The state association hopes much good will result from the tour, as it has been trying hard to generate enough interest to obtain a better highway between the Twin Cities and Duluth. Better roads and more of them is the slogan of the association, and everything possible is being done to improve the various highways. Branch clubs are being formed in the smaller cities of the state, Winona and St. Cloud being the

latest additions. During the month of August the state association will tour to St. Cloud, Winona, Rochester, Waseca, Owatonna and Duluth.

Joining the A. A. A.—The New York Automobile Club, formerly the City and Country Motor Club, has made application to Secretary F. H. Elliott, of the American Automobile Association, for admission to that body, and to the New York State Automobile Association.

Buys Mountain Boulevard—The Wilkes-Barre Automobile Club has succeeded in buying the mountain boulevard from Albert Lewis, the millionaire, who built and owned it. This road, which is much the easiest route out of the valley, has hitherto been closed to motorists, and the latter, finding it impossible to secure permission to use it, did the next best thing and bought it outright.

After the Franklin Record—In an effort to establish a new transcontinental record between San Francisco and New York, D'Arcy Scott & Co., the agents for the Dragon on the Pacific coast, have wired that a Dragon car is now on the way to New York. This record is now held by the Franklin car which made the trip in 15 days. It is the same Dragon which broke the Oldsmobile record around San Francisco bay. The car circled the bay, a distance of over 100 miles, in 3 hours 26 minutes, which was 23 minutes faster than the record.

On a Glide Tour—O. W. Powers, of Salt Lake City, twice a candidate for congress on the democratic ticket and who toured the country with W. J. Bryan when the latter was a presidential candidate, has started on a long tour in a Glide, taking with him Mrs. Powers and their son. The tourists started from Peoria and go across Illinois into Indiana and to Toledo, O. From there they go through Albany to New York city, through Pennsylvania to Cleveland, Chicago, Peoria, Des Moines, Omaha, Denver and Salt Lake, the trip the Salt Lakers are now on being about 5,000 miles in length.

Speed Trap That Pays—Dr. Harry C. Webb, of Syracuse, N. Y., who has just returned from a 2 weeks' motor car trip to Atlantic City, tells of the treatment motorists receive in the little Jersey town of Metuchen. Through this town the speed limit is placed at 7 miles an hour instead of 10, as is customary. Besides this very slow rate of speed, another restriction unknown to the average driver is the requirement in regard to signs bearing license numbers. Through this town, the requirement is that the sign bearing the numbers must be fixed rigid to the car and every car bearing a sign that swings is halted and the owners fined. A speed trap is on the outskirts of the town, consisting of police on motor cycles, concealed at intervals along the road. On the day in which Dr. Webb passed through Me-



MODEL THAT MADE TRIP FROM PERU, IND., TO TAMPA, FLA.

tuchen \$250 had been collected in fines up to 2 o'clock in the afternoon. The fines collected so far this year have been sufficient to pay all the taxes of the town.

Long Drive in a Model—M. Hixon, of Tampa, Fla., recently visited the factory of the Model Automobile Co., at Peru, Ind., to investigate the two-cylinder Model. To find out he and a companion took one of the cars and drove it from the factory through Kentucky and Tennessee over roads that are said to be indescribable, and which he had said no two-cylinder car could travel over. Since he reached his destination the Model company has received an order for a carload of its cars.

Slowing the Scorchers—The Buffalo police commissioners have given out the information that they are not receiving as many complaints against motor car speeders as formerly, and believe that this is due to the good work of the vigilance squad of the Automobile Club of Buffalo in warning reckless drivers. The commissioners requested the members of the vigilance squad to look out for vehicle drivers and motor cyclists who are violating the law in Bisontown.

New Hoosier Boulevard—An extensive boulevard system is being built in Indianapolis and the latest addition to it is the North Capitol avenue boulevard. This runs from the center of the city to Thirty-fourth street, a distance of almost 4 miles, and is a westrumite pavement. It is sprinkled with oil frequently and none but pleasure vehicles—including all kinds of motor cars—are allowed on it. A boulevard in the residence section has created quite a stir among business houses, which are not permitted to run their delivery wagons on the boulevard for more than one consecutive square and heavy commercial vehicles are not allowed on it at all. Four officers mounted on horses patrol

the boulevard. The Fall Creek boulevard was finished last year and the city is now building the Pleasant Run boulevard on the south side of the city.

After Fast Trolley Cars—Following numerous complaints that the electric interurban cars running into Indianapolis are exceeding the speed limits, Chief of Police Robert Metzger is planning to time them. Instructions have been given the driver of the police White steamer to run neck-and-neck with the cars through the city and catch their time with the speedometer with which the steamer is equipped. Then the chief will get busy.

Choose Officers—At a special meeting of the New York Automobile Club the following officers and directors were elected for the coming year: Dr. Edgar T. Weed, president; Andrew J. Cobe, vice-president; James Stuart Blackton, treasurer; I. E. Reskam, secretary. For directors, the officers ex-officio and Commander U. J. Sears, U. S. N., Edwin Churchman, Bert G. Faulhaber, Samuel T. Myer, C. Ledgwick Levy, David C. Goodman, Conrad Hubert, Elbridge G. Snow, W. Woods, David J. Power, Samuel Steinfeld.

Germantown's Election—At its annual election last week the Automobile Club of Germantown elected the following officers to serve during the next twelvemonth: President, Thomas B. Prosser; vice-president, Charles H. Thompson; secretary, Mark B. Reeves; treasurer, Robert P. Hooper; board of directors, John D. McIlhenny, S. B. Ferguson, William F. Helme, Prescott Adamson, Robert P. Hooper, Clarence B. Collier, Harry K. Duffus, Mark B. Reeves and G. Dunbar Shewell. The finance committee is composed of S. B. Ferguson, chairman; Charles H. Thompson, Clarence B. Collier and Robert P. Hooper. The club now has a membership of 160.

THE READERS' CLEARING HOUSE

QUESTION OF LIGHTING

Salina, Kan.—Editor Motor Age—I am writing for a friend to see if you can help us out in a little matter, as I often see questions answered in the Readers' Clearing House department. Is there any manner of lighting a car with electricity from the car? The car has a four-cylinder 24-horsepower motor and is now lighted by acetylene gas. The owner does not like this, nor does he wish to use the kind calling for the gas tanks. It seems to me I have read in Motor Age of some manner of lights by electricity.—Hattie B. McKine.

To run a small dynamo at approximately constant speed from a variable speed engine, such as that in a motor car, is not an absolute impossibility, but to accomplish it would involve so many difficulties that the best advice that can be given is not to attempt it. The voltage of any current for incandescent lamps has to be maintained constant within very close limits, or the lamps fail to give light or burn out from excess of current. This would require a very sensitive friction governor on the dynamo shaft, and also probably a storage battery in addition. The use of this battery would be necessitated by the inability of the governor to control the dynamo speed within sufficiently close limits. The battery would be charged by the dynamo and would deliver current to the lamps, and an automatic cut-out would disconnect the dynamo from the battery when the voltage of the dynamo rose above the proper amount. It would be a great deal simpler, cheaper and better to get a pair of first-class gas lamps and reliable generator or a gas tank.

REPAIRING CRACKED CYLINDERS

Xenia, O.—Editor Motor Age—Please inform me through the medium of the Readers' Clearing House if there is any way in which a single cylinder that has a cracked water jacket on the inside can be repaired and if so who can do the work. If this work cannot be done, can you tell me where I can have a casting made?—Edward Lampert.

If it is possible to reach the injury to the cylinder probably it can be brazed, for brazing cracked cylinders is not new and is successfully performed where the crack is in the outer wall of the water jacket. There is some danger, however, that with the crack on the inside wall the wall will be out of true and that the piston and rings will not fit the walls even if the crack is successfully repaired and the walls made perfectly smooth. The National Brazing Co., 83 West Jackson street, Chicago, makes a business of brazing cast iron, and would have to be con-

sulted on this particular job. If it is found a new cylinder is required, see if one can be obtained from the maker. If this is not possible, consult any good iron founder, but it will be found that a pattern will have to be made and this will prove rather expensive. Besides all this, the work of machining will be costly and it will be found it does not pay to attempt to build over a car or attempt to do too much toward modernizing an old motor.

STARTING MOTOR CYCLES

Newbury Park, N. J.—Editor Motor Age—Will you please inform me through the columns of the Readers' Clearing House whether there is a motor cycle manufactured whose motor is started by means of cranking rather than starting by means of the pedal and also what type of transmission is used if there is such a machine?—E. M. L.

There have been several attempts to make such devices, with more or less success, but they have proved either unpopular or deficient in some manner, inasmuch as there are none in general use so far as Motor Age knows. The Harley-Davidson motor cycle has a clutch arrangement and it might be possible to arrange some sort of a cranking arrangement for starting. As a matter of fact, however, such mechanism only adds complication to the machine and is of little practical benefit to the experienced motorist.

AUTOMATIC TIRE PUMPS

Columbus, O.—Editor Motor Age—I understand there is an air compressor made to pump tires and which is designed to be operated by the motor. Please inform me through the Readers' Clearing House if this scheme is impossible.—Wayland M. Smith.

Such a scheme is not impossible and has been put in operation many times. Motor Age is not informed who carries such an article for attachment to any motor. This, however, adds complication and is apt to get out of order. Tire filling tanks are now made to carry in the car and take up little room. They are easily handled, and can be recharged and are not expensive when their usefulness is taken into consideration. These are made by the Avery Portable Lighting Co., of Milwaukee, Wis., and the Prest-O-Lite Co., of Indianapolis, Ind., and may be procured from any motor car supply company.



USING THE AUTO-SPARKER

Lena, Ill.—Editor Motor Age—I have a runabout with 14-16-horsepower opposed motor and use two sets of batteries of six cells each and a Splitdorf coil. Can I use a Motsinger Auto-Sparker and pass the current through the Splitdorf coil without harm to the coil? How is best to equip my car with the Auto-Sparker? Is a good storage battery preferable?—S. G. Kreider.

The Motsinger people distinctly state that they must furnish the coil where jump spark is used, on the ground that their own coil is wound to meet the requirements of their machine, whereas other coils are not so wound, and that they will not guarantee the working of the instrument unless their own coil is used. A storage battery will give satisfactory results, but of course will run down and will have to be recharged. If properly installed the Auto-Sparker will give satisfaction.

WHO HAS IT?

Ottawa, Ill.—Editor Motor Age—It would doubtless interest a large number of the readers of Motor Age to learn whether it is possible to obtain from any source such a pump and distributor for a four-cylinder engine as described in Victor Lougheed's very interesting article to take the place of the gasoline carburetor. It would seem that were such a gasoline force pump and distributor on the market, which would successfully and at high speeds force the fuel in measured quantities by spraying directly into the compressed pure air, and timed by the spark lever, many owners would experiment by applying such an arrangement to cars now in use. It would seem that no other change would be necessary.—John Smith.

Possibly some reader of Motor Age can answer this question.

EDISON'S BATTERY

Weyburn, Sask.—Editor Motor Age—Please inform me through the Readers' Clearing House columns if Edison's new long-lived storage battery is on the market and if so where it may be obtained.—Gordon Smith.

Motor Age has never been able to learn much about this wonderful battery, Mr. Edison failing to reply to inquiries made direct to the wizard. If such a battery exists nobody knows it unless it is Mr. Edison himself. The story about Edison and a wonderful storage battery crops out about once a year and then is carried around the world through the medium of the exchange columns of the daily and weekly papers. Edison's battery has come to be something of a huge joke among those who know.



LEGAL LIGHTS AND SIDE LIGHTS



RIGHT AND WRONG WAYS

The vexing question of speeding motorists has been overcome and settled without recourse to constables' traps and courts of law in the millionaires' town of Shrewsbury, Mass., a couple of miles east of Worcester. Because of the manner in which motorists are trapped in Leicester, a town to the north of Worcester, an explanation of the manner in which both towns went at the same question with totally different results might not be amiss at this time. In Leicester the selectmen appointed James A. Quinn chief of police, a man who devised traps half way up and down a hill so that he trapped motorists climbing or coasting a hill, or in other words got them coming and going. In Shrewsbury T. Frank Hickey, a young millionaire and motorist, was elected a member of the rural board of selectmen and after much earnest discussion the board decided to leave the vexatious question of the speed of motor cars in the town to him to settle. Shrewsbury abounds in level straight stretches of state roads, some of the finest in Massachusetts, and the temptation was strong for motorists to open 'er a bit when they encountered these aforesaid fine roads. Hickey himself was touring through Leicester when he came face to face with one of the big warning signs in that town. He says he was first tempted to speed his car after reading it and came to the conclusion that most of the motorists trapped were probably similarly tempted and gave way to the temptation which resulted in their arrest. Thereupon he decided that as nine-tenths of motorists probably believed in signs he would placard Shrewsbury with signs for motorists. He has done so in the manner shown in the accompanying photographs. The difference between Leicester and Shrewsbury lies in the fact that there has never been an arrest in the latter town

for a violation of the state law and not one accident has been reported as being caused by a motor car. In Leicester a much different story is told in regard to arrests and accidents. Nearly everyone touring through Shrewsbury throttles down after reading one of the big signs which he doesn't have to stop his car to read, for as one remarked to a newspaper man: "I picture in my mind's eye the word 'Please' at the beginning of every line of the Shrewsbury signs."

FOIL THE CONSTABLES

The recent war between the motorists and the authorities of Norristown, Pa., has resulted in the formation of an offensive and defensive alliance under the name of the Norristown Automobile Association. When the detectives a fortnight ago nabbed twenty-eight motorists for fast going and failure to sound horns at crossings the Norristowners knocked off work, and securing a dozen or more signs reading "Warning—Police Trap!" posted them at all the points where the constables lay in wait. It meant a sacrifice in time, but the result was a complete knockout for the officials, not a single fine being collected after the posting of the warnings. When the detectives changed their base and began operations on other roads the motorists, with signs and tack-hammers, followed them. Then, when motorists with plethora pocketbooks refused to do \$12.50 speed stunts for the benefit of the treasury it became too expensive a proposition to employ men at \$5 per day to sit at the traps and do nothing, and the Vidocqs were withdrawn. The motorists, flushed with victory, then sent out notices for a meeting at the Hotel Montgomery last Wednesday night, when forty aroused owners of motor cars joined the new association.

TEXAS LAW IN FORCE

The new Texas state law regulating motor cars was passed by the thirtieth legislature and became effective July 12. It seeks to regulate the machines on streets and roads, the provisions of the bill being as follows: All owners of motor cars or motor vehicles shall before using such vehicles or machines upon the public roads, streets or driveways, register with the county clerk of the county in which he resides his name, which name shall be registered by the county clerk in consecutive order in a book to be kept for that purpose, and shall be numbered in the order of their registration, and it shall be the duty of such owner or owners to display in a conspicuous place on said machine the number so registered, which number shall be in figures not less than 6 inches in

height. The county clerk shall be paid by such owner or owners a fee of 50 cents for each machine registered. No motor car or motor vehicle shall be driven or operated upon any public road, street or driveway at a greater rate of speed than 18 miles an hour, or upon any public road, street or driveway within the built-up portions of any city, town or village, the limits of which shall be fixed by the municipal officers thereof, at a greater rate of speed than 8 miles an hour, except where such city or town may by an ordinance or by-law allow a greater rate of speed; provided, the speed limit shall not apply to race courses or speedways. No person in charge of a motor car or motor vehicle on any public road, street or driveway shall drive the same at any speed greater than is reasonable and proper, having regard to the traffic and use of the public road, street or driveway, so as to endanger the life or limb of any person thereon. All drivers or operators of motor cars or motor vehicles are prohibited from racing upon any public road, street or driveway. Any person driving or operating a motor car or motor vehicle shall at the request or signal by putting up the hand, or by other visible signal from a person riding or driving a horse or horses or other domestic animal, cause such vehicle or machine to come to a standstill as quickly as possible and to remain stationary long enough to allow such animal to pass. Every driver or operator of a motor car or motor vehicle shall have attached thereto a suitable bell or other appliance for giving notice of its approach, so that when such attachment is rung or otherwise operated it may be heard a distance of 300 feet, and shall also carry a lighted lamp between 1 hour after sunset and 1 hour before sunrise. Every one who violates any of these six sections shall be punished by a fine of not less than \$5 nor more than \$100.

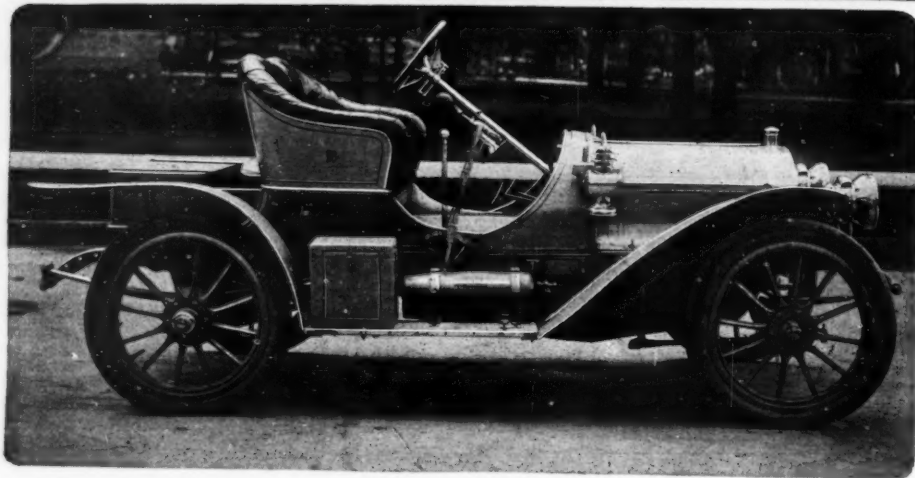


SIGNS PLACED IN SREWSBURY, MASS.



WHAT LEICESTER, MASS., PERMITS

AMONG *the* MAKERS *and* DEALERS



ONE OF DAYTON MOTOR CAR CO.'S 1908 MODELS—THE 8-H STODDARD-DAYTON RUNABOUT

Sparks Switches—George Sparks, formerly manager of the Syracuse branch of the Fisk Rubber Co., now has charge of the tire department of the Chase Motor Co., of Syracuse, N. Y.

Maxwell in Canada—The Maxwell people report a fine and growing business in Canada and are particularly proud of the business being done by the Eastern Automobile Co., of Toronto, which represents the Maxwell in the dominion.

New Michigan Concern—The Parmalee Gas Engine Co. has been organized at Marion, Mich., for the purpose of manufacturing gas engines. A factory will be erected at once and will be in operation this fall. The engines will be made in several sizes.

Quakers Rushed—With Philadelphia's row preempted by the court of honor, erected in honor of the monster Elks' convention, tradesmen located along North Broad street had their own troubles last week. Owing to the number of pedestrians who congregated in the center of the city, vehicles of all kinds were ordered to keep off of Broad street, and as a result demonstrations were at a standstill until after the big parade Thursday. After that the Elks adjourned to Atlantic City and the week's business had to be crowded into Friday and Saturday.

Motoring David Harum—Dr. Charles W. Pagel, who claims the championship motor car trading record of the country, has just purchased a Mitchell runabout. Dr. Pagel lives at St. Paul, Ind., and was one of the first men in the county to buy a car. He started about 2 years ago with a second-hand Holsman, which he traded for a Spaulding. This he traded in on a new Maxwell, which in turn was traded for a horse, stanhope and some cash. Shortly afterward he sold his horse and stanhope to purchase a Ford runabout, which was traded in on a new Holsman. The Hols-

man was traded for a White steamer and this was exchanged for some notes, which were afterward used in paying for the Mitchell he is now driving. Folks in Hoosierdom call him the motoring David Harum of that section.

Introducing Rubberlife—The Rubberlife Mfg. Co., of Grand Rapids, Mich., is putting on the market Rubberlife, a semi-liquid which can be applied to the tire with a soft cloth or sponge. It is asserted that Rubberlife soaks into the spongy, worn-away and thin places, filling them up and turning into a sort of rubber itself and partially restoring the tire. It is claimed it also produces a wear-resisting surface that is not affected by sharp stones or ruts.

Knight Leaves—Charles Y. Knight, of Knight & Kilbourne, of Chicago, makers of the Silent Knight, left Chicago Tuesday for New York, from which city he will sail for England, where he will demonstrate his valveless engine to British parties who are interested in it with a view to adapting it to the motor cab and omnibus service. The noiseless feature of the Silent Knight engine appealed to the British, who have long been complaining of the racket made by the motors now in use in the commercial service.

E. C. Johnson Changes—E. C. Johnson has announced that he had resigned the assistant managership of the White company's Philadelphia branch and had joined the selling force of the Keystone Motor Car Co., which handles the Packard and Buick cars in the territory in and about the Quaker City. Mr. Johnson's future work will have reference to the Packard end of the proposition. The Buick department has been placed in the hands of Edward Wilkie, late of the Spencer-Wilkie company, of Philadelphia. Mr. Johnson is the chairman of the contest committee of the Quaker City Motor Club, and to his

efforts is due the success of many of the events recently promoted by that energetic organization.

Cup for H. J. Edwards—C. G. Stoddard, vice-president and general manager of the Dayton Motor Car Co., engineered a dinner that was given in honor of H. J. Edwards, chief engineer of the company. At the feed a massive loving cup was presented to Mr. Edwards, who is responsible for the new runabout which has just been shown on the road.

New Corbin Agencies—The Corbin Motor Vehicle Corporation announces the following additions to its agencies: Dupont Garage Co., Washington, D. C.; H. O. Harrison Co., Los Angeles, Cal.; J. Archie Hess, Seattle, Wash.; Ford Latham, Schenectady, N. Y.; Frank P. Moshier, Jr., Greenwich, Conn.; Park Garage Co., Allegheny, Pa.; David L. Parger & Co., New Bedford, Mass.; Sawyer Carriage Co., Lowell, Mass.

Buick Builds in Chicago—The new home of the Buick in Chicago was taken possession of last Monday by W. J. Mead, manager of the branch, and at the present time two Buick headquarters are being maintained—the old one at 1412 Michigan avenue and the new one at 1452-54. The latter is known as the Buick building, is two stories high and has a floor space of 171 by 40 on each floor. Something new is the establishment of the Buick company's own accessory department on the second floor which Manager Mead claims as an original idea for his place.

Gasoline Thieves at Work—Dr. and Mrs. George N. Hall, of Binghamton, N. Y., in touring the Berkshire hills of Massachusetts, had their first experience with a gasoline thief. In the Berkshire country Dr. Hall filled his gasoline tank with fuel enough to go 125 miles. Then he left the vehicle at the garage while he got breakfast. When he had gone 30 miles he ran out of fuel. Relating his experience at Albany, he was told that it was becoming a common practice in certain garages to steal gasoline by drawing it off from the cars of tourists, and the practice is so common many tourists have locks for their gasoline tanks.

Michigan's Output—Twenty-two thousand motor cars, with a list value of \$32,000,000, is the record established by Michigan makers of motor cars for 1907 so far. Of this number approximately 12,000, or a little less than 60 per cent, were made in Detroit. The output of Detroit's factories was valued at \$17,000,000. In that city there are at present thirteen plants devoted to the production of motor cars. Of these concerns four did a business in excess of \$1,000,000 each. At least two others exceeded the \$750,000 mark. The motor industry of the state, however, is far from being centered in the larger cities, as figures will show that Jackson, Flint, Grand Rapids, Lansing, Pontiac and Charlotte are the homes of prosperous manufac-

tories. During the past season seven factories scattered about the state produced 9,500 cars, with a list value of more than \$14,000,000.

Gibneys Selling Gas Tanks—James L. Gibney & Brother, Philadelphia agents for Continental tires, have been appointed sole Quaker City agents for the new Stereo-Light gas tank.

Hittle Makes a Change—J. Arthur Hittle, late superintendent of the Marion Motor Co., of Indianapolis, Ind., has gone with the Speed Changing Pulley Co., of the same city, as general superintendent of its engine department. Charles S. Crawford, late of the Lozier Motor Works, Plattsburg, N. Y., has succeeded F. D. Carrieco as mechanical engineer for the Speed Changing Pulley Co.

Great Smith on Coast—J. F. Billings, sales manager of the Smith Auto Co., of Topeka, Kan., maker of the Great Smith, is back from a 5 weeks' visit to the Pacific coast. He announces that while on the trip the greater part of the 1908 allotment for the Pacific coast was contracted for. While there he had the pleasure of seeing two Great Smith cars make perfect scores in the Los Angeles-Lakeside endurance and economy run.

Franklin's Representation—The Franklin company is represented in 106 different states of the union, divided as follows: New England states, twelve; middle Atlantic states, thirty-five; southern states, fifteen; northern states, twenty-one; western states, twenty-three. The traveling force of the company is now enjoying its annual 2 weeks' summer vacation, after which the salesmen will meet at the factory for annual instruction and preparation for the 1908 selling season. The company has added to the sales department G. L. Lloyd, who for 15 years has been connected with the Avery-Stanton company, of Cleveland, O.

Springfield Motometer for '08—Refinements prompted by experience rather than radical alterations are noted in the 1908 models of the Springfield motometer, made by the R. H. Smith Mfg. Co., of Springfield, Mass. One of the most noticeable changes is a new maximum indicator, a supplementary index or pointer which traverses the vertical scale with the regular indicator but which normally remains at the maximum or highest speed attained. From this point it drops instantly at the pressure of a button to the point where the regular pointer is standing at the moment. On the dial the characters and graduations appear in jet black fired enamel on a surface of perfect white, making it possible to easily read the figures from the tonneau. There is a new spring-tempered steel reinforcement at each end of the shaft, designed to give protection against a possible short bend or kink. The shaft itself and its containing sheath have been changed somewhat, the use of oil-tempered spring stock in the sheath giving more room for the shaft and better action under



LOAD OF RUNABOUTS FOR MAXWELL AGENT IN CANADA

flexion, it is claimed. Another feature is the self-clearing or rather non-clogging pinion used in connection with the hub transmission which, it is asserted, prevents clogging with mud.

Stoddard-Dayton's 1908 Runabout—A photograph of the 1908 Stoddard-Dayton runabout, known as model 8-H, shows a body similar to the present model K. The 8-H has a four-cylinder 18-horsepower motor, sliding gear selective type transmission, 92-inch wheelbase and 30-inch wheels.

McDuffee Sales Agent—The Kisselkar company of Hartford, Wis., whose product this year was handled by the McDuffee Automobile Co., of Chicago, has decided that in future it will sell its own product. J. H. McDuffee, formerly with the McDuffee company, has been selected to act as distributor west of and including Colorado. He will make his headquarters at Watrous, N. M., traveling throughout his territory in the interests of the Kisselkar.

First of the Shows—The exhibition of motor cars which is to be held at Atlantic City, N. J., early in August in connection with the races on the Ventnor beach course and the big parade promise to be most successful. Already nearly all of the more than 20 spaces on the million-dollar steel pier have been taken, and interest in the show has grown so rapidly that the management has been compelled to promise to carry the exhibition over into the following week in order to give exhibitors more of an opportunity to show their cars. The races promise to be the best ever held there, no fewer than five Vanderbilt cup performers having been entered for the mile free-for-all championship. Then there will be the big parade, scheduled for August 7, in which at least 500 cars will participate and for which many handsome prizes have already been hung up. But it is the show end of the carnival which is really attracting the most atten-

tion, for it will be the practical opening of the American show season, and many manufacturers will take advantage of the opportunity to spring their 1908 product.

Change in Chicago Concern—Announcement was made this week of a change in the firm of Geyler & Levy, agents for the Autocar and Lozier in Chicago, James Levy buying out the interest of Louis Geyler in the concern. He will maintain the two agencies at the present location on Wabash avenue.

Schwartz to Visit New York—A. E. Schwartz, Paris representative of the American Auto Supply Co., has written the American Motor Car Manufacturers' Association that he will arrive in New York July 27. Mr. Schwartz is to bring to America several innovations in the accessory line, including a transmission with rear axle which is being used extensively on the continent.

New Franklin Idea—The H. H. Franklin Mfg. Co., of Syracuse, has established a department of first aid to the injured at the factory in South Geddes street. A room has been fitted up along hospital lines, painted white, containing a surgical chair, medicine case and all appliances for performing first aid duties. W. V. Brooke, who took a 2 years' course in first-aid work under Dr. J. F. N. Elliott, has been placed in charge.

Postmaster Converted—The success of operating motor vehicles in the transportation of mail in other cities has caused the postoffice department to extend the service to Minneapolis. Marc D. Wanvig, superintendent of carriers at the Minneapolis office, has been in conference with a representative of the Johnson Service Co. Demonstrations at length showing the advantages to be gained by such an innovation have been given for his benefit. Mr. Wanvig was well pleased and wishes the system adopted at the earliest moment.



BRIEF BUSINESS ANNOUNCEMENTS



Fall River, Mass.—Wallace L. Wilcox is to remove to his new garage on Durfee street.

Boston, Mass.—The Boston Auto Light Co. has been incorporated with a capital stock of \$5,000.

Albany, N. Y.—The Automobile Passenger Co., of Brooklyn, has been incorporated with a capital stock of \$1,000.

Boston, Mass.—The Automobile Utilities Co., of Kittery, Me., has been incorporated with a capital stock of \$1,500,000.

Chicago—The Grand Boulevard Automobile Garage Co. has been incorporated and will conduct a general garage and repair business.

Topeka, Kan.—Paul Mulvane has removed his garage and repair shop to the new building at Seventh and Quincy streets.

Nashville, Tenn.—The Memphis Automobile Co. has been incorporated with a capital stock of \$50,000 by S. T. Carnes, W. B. Gates and J. T. Taylor.

Findlay, O.—The Findlay Auto Transit Co. has been incorporated with a capital stock of \$10,000 by A. W. Thompson, A. E. Kinsley and J. T. Reece.

New York—The E. J. Willis Co. has given up its store in Fifty-fourth street, and will concentrate its entire business at its establishment at 8 Park place.

San Bernadino, Cal.—Albert A. Davis, who is the proprietor of a garage, has filed a petition in bankruptcy, with assets of \$4,592 and liabilities of \$6,212.

Los Angeles, Cal.—The Anti-Oak company, which has the agency for the Gale car and the Anti-Oak tire, has opened a garage at 1156 South Main street.

Chicago—The Hercules Auto Specialty Mfg. Co. has been incorporated with a capital stock of \$100,000, and will manufacture, sell and deal in motor cars.

Detroit, Mich.—The City and Suburban Homes Co. is erecting a garage on Jefferson avenue. The name of the prospective tenant has not yet been announced.

Albany, N. Y.—The Mt. Kisco Automobile Co., of Mt. Kisco, has been incorporated with a capital stock of \$10,000, and will do a general manufacturing business in addition to operating a garage.

Akron, O.—The Akron Automobile Garage Co. has filed articles of incorporation at Columbus with a capital stock of \$25,000. The concern is erecting a garage on East Buchtel avenue. Among those interested in the company are A. Auble and Earl Buchman. The new building is to cost between \$15,000 and \$18,000, and will be ready for occupancy about September 1. Auble formerly was the local repre-

sentative for the Oldsmobile and a vice-president of the Ohio Automobile Association.

New York—The E. F. Willis Co., of 8 Park place, which recently filed a petition in bankruptcy, has made a settlement with the creditors. Thirty cents on the dollar will be paid.

Columbus, O.—The Gaeth Automobile Co., of Cleveland, has been incorporated with a capital stock of \$100,000 with the following directors: Paul Gaeth, F. L. Pierce, F. G. Howe and W. F. Kees.

Boston, Mass.—O. H. Lufkin, who has been connected with the local branch of the White company, has severed his connection with that concern and in the future will be associated with the Peerless Co., of New England.

Nashville, Tenn.—Application has been made for a charter for a new concern to be known as the Hermitage Auto Co. The company will have a capital stock of \$10,000, and is to take over the business conducted by E. E. Sweeney, who has had the local agency for the Stevens-Duryea. Sweeney had been conducting both the motor car and the carriage business at his establishment on Third avenue, but with the incorporation of the new company the two organizations will be separated, and the motor business will be extended. For the present the garage will remain in



Canton, N. Y.—Vehicle Power Co.; capital stock, \$25,000. Incorporators: M. V. Etheridge, S. J. Cox.

Columbus, O.—Harner Motor Car Co.; capital stock, \$100,000. Incorporators: Fred S. Harner, C. S. Stafford and J. E. Ward.

Atlantic City, N. J.—Atlantic City Auto Carnival; capital, \$10,000. Incorporators: C. W. Tatem, Harry Wooten and L. W. Hoopes.

Dublin, Ga.—Dublin Automobile and Machine Co.; capital stock, \$10,000; to sell, store and repair motor cars and machinery of all kinds.

Springfield, Mass.—Dwight Automobile Co.; capital stock, \$10,000; to deal in motor cars, etc. Incorporators, C. M. Bryan and F. L. Barstow.

Newark, N. J.—South Orange Automobile and Supply Co.; capital stock, \$50,000. Incorporators: M. O. Hull, Amelia Hull and H. H. Christian.

New York—Breeze Carburetor Co.; capital stock, \$5,000; to manufacture motor cars, motors, engines, etc. Incorporators, H. A. Robinson and I. J. Reynard.

New York—J. E. Demar Co.; capital stock, \$15,000; to engage in the manufacture of motors, engines, carriages, vehicles, boats, etc. Incorporators, J. E. Demar, R. E. and J. R. Beatty.

Chicago—People's Garage and Livery Co.; capital stock \$1,000; to do a general motor car manufacturing business, in addition to storing and dealing in cars. Incorporators: W. Wilhartz and A. S. Louer.

the old quarters. Among the incorporators are E. E. Sweeney, G. Benton, C. W. Harmon and J. H. Bell.

Houston, Tex.—The new three story addition to the establishment of the Mosehart & Keller Co. has been formally opened. The concern deals in carriages, motor cars and other vehicles.

Milwaukee, Wis.—At the recent meeting of the creditors of the Four Wheel Drive Wagon Co. a dividend of 8 per cent was declared. It is expected a similar dividend will be declared before the estate is closed.

Columbus, O.—The Ohio Brass and Mfg. Co., which makes a specialty of manufacturing castings for motor cars, etc., has increased its capital stock from \$50,000 to \$75,000. A large addition is in course of erection.

Dearborn, Mo.—The O. T. Fegert Mfg. Co. will make a proposition to the Business Men's League in the near future with a view to securing a factory location in this city. The concern manufactures gasoline engines and motor cars.

San Jose, Cal.—Osen & Hunter have bought the Letcher garage on North First street, and will enlarge and improve the establishment. The purchasers were formerly located on St. John's street, but were burned out a short time ago.

Philadelphia, Pa.—The Dragon company has leased quarters at 143 South Broad street, and will open a garage and salesroom. Arthur B. Cummer will be in charge of the new branch and will be assisted by W. L. Edison, son of Thomas Edison.

Saginaw, Mich.—The Rainier company is extending its foreign field. In addition to the agency just opened in Porto Rico, H. T. Braschi has opened a branch in Mexico City, and negotiations are under way for agencies in Havana and Rio de Janerio.

Columbus, O.—The Oscar Lear Automobile Co. has filed certificates increasing its capital stock from \$20,000 to \$250,000, and changing its place of business from Columbus to Springfield. The company expects to remove its plant about August 1.

Detroit, Mich.—The Standard Automobile Co. has purchased the property at Woodward and Garfield avenues and will start the erection of one of the finest motor establishment in the state. The company has the agency for the Packard and Oldsmobile.

Syracuse, N. Y.—H. D. Caldwell, formerly with the G & J Tire Co., and more recently with the Atwood Automobile Co., of Toledo, has been added to the sales force of the H. H. Franklin company. R. W. Madey, of the Ford company, will in future be connected with this concern.